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AUDUBON MAGAZINE regrets that it cannot continue subscriptions beyond date of expiration. Checks and money date of expiration. Checks and money orders should be made payable to AU-DUBON MAGAZINE. Editorial and advertising offices, 1000 Fifth Avenue, New York 28, N. Y. Reentered as second-class matter April 29, 1942 at the Post Office at New York, N. Y., under the Act of March 3, 1879. Copyright, 1947 by the National Audubon Society.

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Formerly BIRD-LORE

Audubon

Number 1

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EDITOR: Eleanor Anthony King. CONTRIBUTING EDITORS: Arthur A. Allen, Henry Beston, Alan Devoe, Ludlow Griscom, Louis J. Halle, Jr., John Kieran, Aldo Leopold, Robert Cushman Murphy, Donald Culross Peattie, Roger Tory Peterson, Herbert Ravenel Sass, George Miksch Sutton, Edwin Way Teale. PRODUCTION: W. W. Whitman, Robert Seibert.

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EAGLE MAN



By Roger Tory Peterson Photographs by the Author





HEN Charles Broley reached sixty, he retired. He had been manager of a bank in Winnipeg for twenty-five years, and sixty is

the traditional age for bankers to retire. It is also traditional for men of means who have passed the three score mark to go to the west coast of Florida to towns like Tampa or St. Petersburg to enjoy their well-earned rest.

En route south, at Audubon House in New York, Broley met Dick Pough, affable host to all the visiting birdmen who stop at 1000 Fifth Avenue. At lunch Dick suggested he try banding a few Florida eagles. It was only a casual suggestion, but Broley seized on it. He was looking for some such project as this; he had been an active man all his life, even though a banker. He couldn't feature just sitting around in the sun. In the whole history of bird banding prior to this chance visit, only 166 bald eagles had been marked. In the nine years that followed, Broley banded more than 900.

The first season he banded 44 eagles. To his great surprise one of the bands was soon returned from Columbiaville, New York, 1100 miles away. Ornithologists sat up and took notice when other returns came from points equally far away. One bird, banded at MacDill Field Army Air Base in Tampa, was found shot in New Brunswick, nearly 1600 miles distant. It was last seen at the Air Base hardly more than a month before. Another bird reached Prince Edward Island in the Gulf of St. Lawrence.

For nine years Charles Broley has risked life and limb to band bald eagles. The result: a surprising amount of new knowledge



Broley's banding taught us that Florida bald eagles, like typical American tourists, spend the winter months in Florida (Broley does his banding in January and February), and the summer in the cool north. There are no eagles in Florida during the hot summer months. The hawk watchers at Cape May and at Hawk Mountain see these same eagles heading home in September. We always thought this September flight of bald eagles was of northern birds, but the bigger, more powerfully built northern birds probably do not come down until much later, probably not until winter when we see them riding the ice floes that choke the Merrimack, the Hudson and the Delaware.

Broley had not originally intended to do the rough work himself. He hired a boy to climb for him. The lad climbed the first tree; but when he raised himself over the rim of the nest, the large young eagle reared back, ready to strike with its big yellow claws. The boy, frightened, reached for a stick to whack it. Broley could not countenance this; he would have to find a way to climb the trees himself, so he devised a system of ropes and ladders.

When I wrote Broley that I was coming to watch him band his eagles, he sent me these instructions:

"Bring your oldest clothes as I always have burnt-over territory to work in and many of the trees are burned and black part way up, and with the pine rosin running on hot days I certainly am a mess. High boots are also advisable. I killed a five-foot rattler last Tuesday and last February I stepped right on a big one. If you intend to climb up to some of the nests with me I would suggest that for three weeks before you come you try chinning a bar until you can go up fifteen times. Work into it gradually—start by chinning yourself three times a day."

We had no chinning bars in our apartment so I used the bathroom door. I struggled up and down its smooth sur-



face and thought, "What a man Broley must be!" Although I am thirty years younger than he, I could hardly pull myself up seven times.

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Broley had more than 100 eyries under his watchful eye in the season of 1946, and we visited 40 of them. Many could be reached by little sandy roads that wound through the "flat-woods," but often we had to park the car and pack the 40 pounds of cumbersome climbing equipment a long way through the scrub palmetto and pines. Most of the nests were in the virile, tortuouslimbed longleaf pines that give that part of Florida its picturesque, parklike look. I wanted to find one where I could climb out on a limb and photograph Broley in the nest with a young eagle. Near Placida, in Charlotte County, there was just the right eyrie. A large horizontal branch at nest level would allow me to get out about 12 or 15 feet.

The first big limb was go feet from the ground and the thick-set trunk, with its rusty scabs of bark, was impossible to "shinny." Reaching into his sack, Broley took out a four-ounce lead sinker, fastened to a cord. Placing the weight in a spoon attached to a broomstick, he catapulted it over the limb. His accuracy on the first try was explained when he told me that he used to play La Crosse with the Indians in Manitoba. When Broley started eagle banding he pitched the weight over by hand, but one day he threw his arm out, so he now uses the broomstick. The weight, falling across the branch, drops to the ground. To the cord is fastened a larger cord; to that a rope, and to the rope is attached a rope ladder. When the lad-



der is pulled into place it is lashed securely about the base of the tree.

Don't think that a rope ladder is a cinch to climb. You have to know how. If you climb it frontally like an ordinary ladder, your feet swing forward, and it is very taxing on the arms. The system is to climb the ladder *edgewise* like a trapeze artist, grasping only one of the vertical ropes and going up "heel and toe" with one foot on either side.

Once up to the first branch the rest is limb-to-limb climbing, using short lengths of rope to throw over limbs for a hoist. Getting over the edge of the nest is often a problem, for the big platforms flare out like huge wine glasses. "Nest No. 23" at St. Petersburg, a "super nest"—20 feet deep and 9½ feet wide—is probably the largest nest in America, exceeding the "Great Eyrie" at Vermilion, Ohio. That famous nest which Dr. Herrick studied was 12 feet tall and 8½ feet across its flattened top before it crashed in a storm.

To step up to exceptionally deep nests Broley throws a short rope ladder over the platform of sticks and anchors it. But for most nests he uses a sort of shepherd's crook: an iron rod, 5½ feet long with a broad hook which fits over the edge of the nest. There is a smaller reverse hook at the other end in which to insert his foot.

Our tree was not a hard one to climb, and Broley went up first. As his head appeared over the edge of the flight deck, the young eagle, an 11-week-old bird, grew panicky and launched off the other side. As it would have been another three or four days before the eaglet should have flown, it lost altitude rapidly. Broley yelled down to me to watch it. The bird crossed a deep creek and drifted a third of a mile until I lost sight of it in a low spot at the edge of a palmetto hammock.

Broley never leaves young birds on the ground, for the parents might not feed them there. To save them from predators and from starvation, he has been obliged to replace more than 30 youngsters. One day an eaglet jumped out and tangled with a grapevine. It took an hour to get it back to the nest. Immediately, it hopped out on the stub where its nest mate was perched, then both lost their balance and came flopping into the lake below. They flapped ashore and hid in the dense scrub. By the time Broley got them back up the tree he had spent seven hours. No wonder he has lost as much as 17 pounds during a single week's banding trip!

This youngster from the Placida nest threatened to be another such problem. We found a way to cross the creek without swimming, but search as we might we could not locate the bird. At the end of two hours, by reorienting ourselves we discovered it crouching under the fanlike fronds of a saw palmetto. It was a two-man job to get this vinegary full-grown young eagle wrapped up in a piece of cloth so we could transport it. Broley climbed the tree again and hauled up the struggling bird in its canvas shroud. Replaced in the nest, it calmed down. It had savored enough of adventure for awhile.

I followed up the ladder, reached the nest and, tense and puffing, edged my way out on the big limb. There was nothing between me and the ground to stop me if I fell. My admiration for Broley's simian abilities grew. He even went out to where I clung nervously and tied me on, so I could use both hands while I took my pictures.

The view from an eagle's eyrie is the best in the countryside. It is exhilarating to perch on Haliaeetus's high lookout, usually the strongest and highest tree in the neighborhood. The two or three trees I climbed with Broley commanded magnificent views—great stretches of parklike pine land interlaced by winding tidal creeks or flanked by expansive salt flats stretching out to the palmstudded shore of the Gulf. The only bald eagle's nest I have ever seen that surpassed these in grandeur was one the

Craighead twins showed me on the banks of the turbulent Snake River in Wyoming where the snowy alplike peaks of the Grand Tetons formed an unbelievable stage back-drop for the King of Birds. But bald eagle nests are rarely seen in the western mountains. That is the realm of the golden eagle.

I have visited eyries in a dozen states and have climbed to a few. When I visited the eyrie in Vermilion, Ohio, Dr. Herrick's famous steel tower had been dismantled, but I did ascend a similar tower that had been erected by CCC boys beside a nest at Bombay Hook, Delaware. The young having flown, I left my camera on the ground; but when I reached the platform, one of the eagles flew over within 20 feet, strafed and dived-bombed by two hot-tempered little kingbirds. This would have been the picture of all pictures, had I not left my camera below.

Very young baby eagles, still covered



with pale whitish down, are too small to band. The large aluminum bracelets slip off. Brolev bands most of his young birds when they are between three and six weeks old. They are easiest to handle then and are padded with a heavy dark feltlike down, almost like wool, with the dark, budding feathers poking through here and there. Sometimes he has not been able to visit an eyrie until the eaglets were ten or eleven weeks old. These powerful youngsters, sleek in their new coat of glossy dark feathers, are full of fight. Several times they have sunk their "meat-hooks" completely through Broley's hands, and he has had to use his banding pliers to force them out. Once a young bird grasped his hand and while he was intent on prying the talons loose, the bird suddenly threw its other foot into Broley's face. Two of the sharp sicklelike hooks narrowly missed each eye, and a third sunk deep into his scalp. With blood streaming down his face, he got out of that predicament; but he still doesn't quite know how he managed it. So the report is not far wrong that Broley is "scarred from head to foot," or as one local newspaper stated, through a typographical error, "Mr. Broley is scared from head to foot." Broley now avoids the vicelike handshake by certain ju-jitsu tactics which render the young birds helpless while he puts the bands on.

He has never been attacked by an adult eagle. Such stories are a part of fiction and folk-lore. The worried parents fly back and forth at a safe distance muttering to themselves in a low kak-kak-kak-kak, or in a high-pitched creaking cackle kweek-kuk-kuk, kweek-a-kuk-kuk—a sound which resembles the squeak of an unoiled castor—hardly the defiant scream one would expect from an eagle!

Great horned owls, on the other hand, are bad actors. Broley has had several scrapes with owls which had taken over eagles' nests for their own use. One of these aggressive silent-winged birds,

striking him unawares, left the gashes of every claw in his back, and nearly knocked him from the tree. Every year some of the eyries are appropriated by these big owls which are very plentiful in the flat "piny woods." About five per cent of the eyries, or one in 20, are commandeered, so the owls are the biggest factor in nest failures according to Broley, except in those seasons when an autumn hurricane blasts out the nests before the owners return from their northern tour.

One year, a horned owl was found brooding an eagle's egg with one of its own. Broley tells of an even more fantastic situation. As he approached one of his nests the female eagle flew off. When he climbed to the great pile of sticks a great horned owl flew off. There, less than three feet apart, he found two eggs, one belonging to the owl and one to the eagle. What dirty looks must have been exchanged by the two stubborn birds as they incubated only an arm'slength from each other! Torrential rains flooding the sandy backwoods roads made it impossible to revisit the nest, so we shall never know the outcome.

Broley found that his Florida eagles eat little else besides fish (over 90 per cent), but one pair-the birds in nest No. 35-are very partial to scaup ducks. This is an exception, not at all typical. Another family with unusual eating habits, lives in nest No. 86. These birds have an appetite for brown pelicans and great blue herons! Hardly a year passes that Broley does not find the remains of one of the huge herons in the nest. Both the pelican and the great blue have a wing spread near that of an eagle, but they weigh less, 61/2 to 71/2 pounds (the limit an eagle can lift) against the eagle's own weight of 8 to 12 pounds. Being brought up on such fare seems to do something to the young eagles in nest 86, for they are by far the toughest and most ornery youngsters Broley has to deal with.

Like other winter residents, Florida



bald eagles are great curio collectors. Broley has taken large electric light bulbs from their nests, a clorox bottle, a tennis shoe, a child's dress, a gunny sack, a snap clothes-pin, corn cobs, whelk shells, silk panties, and a copy of *The American Weekly*. A fish plug and a 70-foot fish line were brought to the nest with fish, probably. In one nest Broley found a white rubber ball which the female did her best to incubate six weeks after her two young were hatched.

The bald eagle's distribution is spotty. Coastal Alaska has the greatest number, the Great Lakes a few score, Maine a few dozen, and there are smaller concentrations in the Santa Barbara Islands, along the northwest coast and elsewhere. In spite of states' rights, some commonwealths do not have even one pair of nesting eagles. They say there used to be a pair of bald eagles for nearly every mile of shore line in the Potomac-Chesapeake area, a density of eagles as great as that in western Florida. But Bryant Tyrrell, who knows more than anyone else about this population, tells

me that now, probably, there are less than 200 pairs. I know of three nests within five miles of Washington, D. C., and while taking a Christmas Bird Count I have seen 18 birds in a day on the ice-choked Potomac. It is appropriate that our nation's capitol should be a stronghold of the national bird.

There are some who would side with Benjamin Franklin in disputing the bald eagle's fitness to be our national emblem. Professor Francis Herrick, in his brilliant defense, if defense be needed, writes: "He nests high, as near to the sun as he can get, like a true bird of Jove and messenger of the star of day. He is a model parent and probably spends more time-upwards of six months-in rearing his family and giving his progeny a fair start in life than any other bird known to this continent." And besides all this, the bald eagle is a true native son, found the breadth of the Union, and unlike the golden eagle or 'international eagle' is almost unknown outside, except in the land of our friendly neighbor, Canada.

"Our eagle has been outlawed, robbed, shot, dissected, painted, modeled, and mounted for museums, while its comings and goings have been carefully noted by observers for over a century." So wrote Herrick, in his classic monograph, "The American Eagle." To Charles L. Broley, a Canadian, goes the distinction of adding more to this growing accumulation of knowledge of our national bird than any man now living.

Broley estimates that there are over 400 eyries in Florida. There was a time when half of them were robbed each year by oölogists who traded the eggs off to other oölogists. A friend of mine, who visited one of these oölogical kleptomaniacs in Florida a few years ago, was shocked when his host drew from

beneath a table a bucket, brim-full of eagle's eggs, the loot of one season's climbing. And a nesting eagle lays only two eggs! That sort of looting has stopped in Florida now, and Broley has lost none of his birds to eggers. He gives the heartwarming news that 95 per cent of the residents in Florida like the eagles and want to protect them. They regard them as an asset to the state, a valuable attraction to the tourist trade. In timber lots that have been logged, eagle trees have been left standing, and as evidence of pro-eagle sentiment I saw two or three nests on golf courses. In the center of a colorful gladiolus farm, stood a lone tree, the only one spared, when the fields were cleared, because it held an eagle's nest. In a nearby town another pair of eagles occupied an aerial castle in a dead tree now surrounded by houses. The town had grown up around it, and the vacant lot where the tall twisted tree stood was for sale, but the man next door, who feared for the eagles if the lot were sold, discouraged prospective buyers by informing them that the land was so low it formed a lake when it rained!

The most remarkable nest of all was one only a hundred feet from the back porch of a house. It reminded me of osprey's nests I have seen on cartwheels atop poles near farm houses at Cape May. Directly below was a chicken pen, unscreened at the top, but the eagles did not bother the large white leghorns that strutted within, nor the numerous English sparrows that built their trashy nurseries in the sides of the eagle's own great nest.

In Sarasota I saw two large young standing in a nest in a big pine behind the high school. The boys were weeding their victory garden beneath the tree, and a neat white sign read;

This story is from Mr. Peterson's book Birds Over America, to be published by Dodd, Mead & Co. in the fall. The photographs were made while the author was on assignment from Life magazine.

BALD EAGLES Do Not Disturb Order of Chief of Police

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When Broley first started his work he was arrested several times before the police got to know him. Once, while he was climbing to a nest, the defenders of the law received three telephone calls from outraged neighbors who thought Broley intended nest robbery. Now he usually checks in with the police before he starts his banding. Today local residents know him well, and a letter addressed simply to the "Eagle Man," Tampa, Florida, is sure to reach him.

The residents of Florida are a civilized lot. I hope that people elsewhere will follow their enlightened example and cherish their eagles before it is too late. Years ago in the British Isles they lost their last sea eagles, the brownheaded European counterpart of our bald eagle which a Russian ornithologist once contended was conspecific with

it—merely a race of the same species. In one small country in northwestern Europe, a monument stands where the last pair of sea eagles nested.

Richard Pough, who first suggested the whole eagle idea to Broley, has spent many a sleepless night, hoping that Broley will quit before he has an accident. But Broley is a careful man. He never trusts a rotten limb and tests each branch before he makes a move. The tougher the tree the more he enjoys the problem, even though it takes four or five hours. He is proud that no nest has yet stumped him, even those in cypress trees 115 feet from the ground. "In fact," he told me, "climbing is getting easier each year instead of harder." Although he is very reticent about it, he has had one fall. It was at the end of a season of banding. He stood on a chair in the bedroom to put his equipment away on a closet shelf. The chair slipped; Broley hit his head on the bed and was knocked out!

Now It Can Be Told

R OGER TORY PETERSON, the author of that book indispensable to all bird fanciers, "A Field Guide to the Birds," now out in a fine, extended, handsome, new edition, has no patience, we hear, with people who "love" birds. Birds are stupid creatures, he claims. They merit no affection. But they are nonetheless, his life, his profession, his one great interest. Being younger than you think, he was inducted into the army in the recent war, and though he did the best he could for his country, he was not an able soldier. His mind was on other things. Virginia, where he was stationed, was alive with birds that spring, and his eyes strayed skywards when he was doing KP, and he searched for nests while on the march. Then came VE Day. The camp was all excitement, and plans for an enormous parade with a big reviewing staff were slated for a few days hence. The men were told all the details including route of march. But when Roger Tory Peterson learned in what field the parade was to take place, he was far more excited than he had been at the ceasing of hostilities in Europe. He even



pushed his way into the presence of the Commanding General. They mustn't march there he shouted. That field was covered by the nests of the upland plover. The eggs would be shattered. Ornithologically speaking it would be a tragedy. The General brushed him off as crazy and proceeded with orders. But Private Peterson was not through. He went to the nearest town that boasted a newspaper, told the story to the editor, and the next day it was all over the front page: U. S. Army Exterminating Rare Bird, G. I. Boots To Trample Upland Plover Nests. The whole countryside got the story, Washington heard about it, and the Commanding General, no doubt fit to be tied, had to change the complete route of march. But one generation of upland plover survived.

THE serious bird men in this country stress the value of ornithology as pure science, and I'm happy to endorse their view. It probably won't make any difference to them, but I'd like to take bird-study seriously; it's the birds who won't let me. I try to make my observations count as a contribution to the general fund of knowledge, but I get no cooperation at all from our feathered friends.

Only this past spring I found a northern yellowthroat building a nest in a thicket practically outside my door. "Aha," I said, "I'll make a study of this bird's life history." So every morning and every evening I watched until the nest was complete. Now for the egg-laying, I thought. But nothing happened. The bird flew away, the nest was deserted and eventually fell down. See what I mean?

One time I did get my name into print for a scientific observation. It was the Christmas Count in Augusta, Georgia, and I found a blue-gray gnatcatcher in a stand of pine. It developed that this was the only gnatcatcher ever seen on a Christmas Count in Augusta, and Dr. Fred Denton, who wrote up the report, listed

Blue-gray Gnatcatcher (1) (Fink)

I found out that this was customary when a sight identification was questionable. My old friend Fred didn't doubt my word; he just wanted to make it clear who thought he saw this bird.

I seldom find rare birds. Sometimes they may discover me, but when they do, they keep very quiet about it. As all good Christmas Counters know, certain birds are spotted ahead of time and then one of the more willing but less brilliant workers is sent to find them. So it was with the brown-headed nuthatch. Everybody knew there were a half dozen of them in those Georgia pines. I even found them myself the day before we made our Count. But could I find the

Brown-headed nuthatches photographed by Samuel A. Grimes. Northern yellowthroat, page opposite, by Eliot F. Porter.

I Always

bird on the fateful day? You know the answer. It was the first time in years that a brown-headed nuthatch was missing from the Augusta list. The local bird club was happy to have me go back to Jersey.

It's always been that way. Either I'm too slow or too late, or just don't know the bird when I see it. Something always

happens.

When a small invasion of Cerulean warblers was reported in Jersey this summer, a friend told me about it—just two days too late. The birds had left. An avocet stood quietly in a lake near Hamburg, Pennsylvania, for a week or more in October. But when I came down from Hawk Mountain to see the bird, a fog had closed in over the lake. A B-29 would have been invisible 100 feet off shore.

One time I was in a boys' camp at Oakland, New Jersey. Floyd Wolfarth stood outside scanning the skies while I went into one of the cabins for a conference with the camp director. Out of



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By Louis C. Fink Drawings by Robert Seibert



the corner of my eye (the good one), I saw Floyd gesticulate wildly, while boys scurried down from the hills like brown ants to sugar. Not too long after, I decided I'd better have a look, too. Floyd pointed to a pin-point drifting southward and now a mile away. "A bald eagle," he said. "We had a fine look at it when it was overhead."

Well, eventually I saw my bald eagle and it was a thrilling sight. We sat in the rain for two hours one raw December day at the Boonton (New Jersey) reservoir and trained a 40-power telescope on a beautiful adult eagle. The poor creature was as wet as we were, but he managed to look far more noble.

Usually, I'm not that lucky. When Maurice Broun spied a Cooper's hawk at Hawk Mountain, Pennsylvania, I was busily watching sharp-shins—on the wrong side of the summit. I needed a Cooper's on my list that year, and there is hardly a better place in the world to study a hawk than at Hawk Mountain. I scrambled off my rocky perch, clambered around to where Maurice was and got only a barked shin for my pains. The Cooper's was gone. Naturally.

Sometimes when I'm not too late, my senses let me down. Allan Cruickshank says he can smell a Leach's petrel at 20 paces. I'm lucky if I see one—and it better be standing still. Allan double-crossed me one time on the mainland near Hog Island, Maine. He stopped our group of tyros, pointed to a telephone pole and cried, "Quick, now! Who can identify that small, dark bird on the wire?" I thought fast. "Crested fly-catcher," I screamed. "Now use your binoculars," he advised. I should have done that at first; it was a glass insulator on the pole.

It was also near Hog Island that Joe Cadbury told us to stop and listen. "White-winged crossbill," he said rever-



ently. My ears strained. I heard only the rustle of the breeze through a large spruce. Very pretty, but it wasn't a crossbill. The others in the party stood stock still and listened. Slowly they nodded their heads in assent. Wasn't it wonderful—imagine hearing the delicate trill of a bird as elusive as the white-winged crossbill. Imagine was all I did. I haven't heard that bird yet.

It was the same way with the dipper at the Falls on the Yellowstone River. The little gray dipper was one of the things I had traveled half-way across the





continent to see. So when our guide approached the bridge over the river and told us we could expect to see dippers, I tensed myself. We looked into the water below. "There goes one," somebody yelled. "Running into the water." I was perplexed. "Right there! There goes another. Oh, he's in the water now, you can't see him." The tourists were held up an extra ten minutes until I could see a dipper. I finally found one before he jumped into the river, but it was a struggle.

Such things destroy a man's confidence in himself. The next day I was tramping around the hills near Old Faithful geyser. The bird that I saw taxed my imagination. It was unquestionably a junco-but its flanks were pink! Peterson's "Eastern Guide" didn't mention any such bird, and I had been unable to secure a "Western Guide." The Park Ranger said he had never heard of such a bird; I finally decided I had made a mistake. But the next day I saw it again-this time half a dozen of them. Eventually, of course, I found out that there was such a thing as a pinksided junco, and my senses had not deceived me. I resolved never to go birding alone again.

It's not that my eyes are bad. Only the other day I was out with a large group of birders on the shores of the Passaic River in New Jersey. There was

Water onzel below photographed by William L. Finley. Bald eagle, above opposite, by Allan D. Cruickshank. Falls of Yellowstone, left, and Old Faithful geyser, right, photographed by the anthor.



a mist rising from the water and it was difficult to see anything at all. But I spied a bird a hundred yards down the beach. Just a gray outline in the fog, running back and forth on the mud as the waves chased it ashore. "Sandpiper," I announced to the others with less perfect vision. "Probably a least or semipalmated. Hundred yards downstream."

The bird leaped into the air, flew towards us and screamed in disgust, "Kill-dee. Kill-dee." The two rings on its collar were plainly visible. Oh, my eyes

are good, all right.

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I didn't mind too much when a 16-year-old boy saw a gannet among hundreds of herring gulls off the Atlantic Highlands. After all, that took a keen eye. I'm not too disappointed when I sit on the Montclair Quarry and fail to spot all the hawks. The men who can identify hawks a mile away have had years of training. I wasn't discouraged when I saw a big crow in Maine—and failed to realize it was my very first raven.

But the case of the albino sparrow bothers me considerably. It leaves me depressed. When one of my Boy Scouts first reported a small, white bird on the lawn of our public library at home, I chalked it up to imagination. Small boys are always describing species that exist only in their imagination. Nevertheless, since I have to pass the library every day on my way to work, I kept my eyes open. No albinos; only brown English sparrows.

But the reports persisted. Other boys, and then their parents, told me of the white bird which, from the description, could only be an albino English sparrow. Not a great discovery, but still a novelty. And so every morning as I



walked to the railroad depot, I looked at the library lawn. No albino.

Soon a couple of ornithologists confirmed the identification. A short paragraph appeared in the local newspaper. But did I see the bird? Not a sign. Finally I decided that it was just my misfortune to pass by the library at the wrong time. You see, train schedules are fixed and I always stroll down the avenue at precisely quarter to eight in the morning. Maybe the bird was there later in the day, I thought.

So I asked one of my Boy Scouts at what hour he saw the albino. "Oh, it's not there all day," he said. "Best time is in the morning. Usually I see it at about quarter to eight."

I hadn't even seen a 12-year-old boy at quarter to eight. Much less an albino

See what happens? I always miss them!



DUST CHOKES PLAINS Motorists Injured CROPS ERASED CROPS ERASED

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Wheat Suffers On South Plains

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AMARILLO TIMES

DUST, HIGH WIND COVER PANHANDL

DUST of the Plains

By H. H. Finnell

Photographs by Soil Conservation Service

THE early pioneers encountered dust storms in the western plains. They were a rare but awesome spectacle, sometimes likened to the wrath of Heaven. When the real old timers told about them, they left little of their frightfulness to be guessed. At the same time there was a tendency toward vagueness about the causes. It made a better story, somehow, if partly draped with mystery. All this was calculated to convince the tenderfoot that he-man qualities were required of those who came there to stay.

Settlers who came to the plains to farm heard about dust storms from eyewitnesses. Then they saw their first, but few thought to connect them with agriculture. The great dense clouds of storm dust were looked upon more as a natural wonder of gigantic character.

So, regardless of doubts about their origin and cause, there was no doubt about how big and scary they were. No more doubt than there is now about grass on the plains that once grew stir-

rup high-and still does if given the chance.

Dust storms took their place alongside the lore of the big hail that swung out of Colorado, all the way across No-Man's-Land and clear into Texas. The one that killed whole herds of sheep and beat their wool into the ground! And that blizzard which left cattle standing, frozen to death in their tracks, a few falling over when the wind changed, but most of them standing till it thawed.

The men and women who dared stake their fortunes against the uncertainties of this phenomenal place counted on adventures.

It was not the tradition of America's great western frontier to fall short in such matters. First, the sandstorm out of the sand hill barrens and the dry stream beds, then the black blizzard out of the settlers' cultivated fields were to be a part of every plainsman's experience.

Newcomers of the 1920's heard but faintly the indistinct echoes of the earlier happenings. Still, there was not as



much the tendency to doubt as to credit them to days gone by, while feeling that "now everything is changed."

But if there were any doubters about storm dust, the 1930's made believers out of them.

From 1932 the number of dust storms that swept across the southern plains steadily increased from two or three a year until there were 72 in 1937. It didn't take much soil exposure to make a dust storm. From counties with only one-third to one-half their land in cultivation, and not more than one out of seven of the cultivated fields in condi-

tion to blow, came some of the worst dust clouds of the 1930's.

The conditions that made it hard for the farmers to keep down the dust were essentially two-fold. Too many of them were farming low-grade land. Their financial resources were depleted by economic depression. This meant that some were forced to abandon their operations where they farmed land incapable of maintaining ground cover during the normal low rainfall periods characteristic of the plains climate. Others, discouraged by the ruinous prices obtained for their wheat and with credit ex-



Last spring the dust threatened a major outbreak in the southern great plains. The headlines tell how near we came to a real emergency. Precautions taken by farmers in 1947 will soon be put to the test. The current "blow season" is now starting. The author, research specialist of the Soil Conservation Service, explains why we will always have some storm dust but why we need never have a recurrence of the prolonged and severe outbreak experienced in the 1930's.



hausted, abandoned fairly good land to the caprices of the March wind,

All of this was to some extent due to inexperience. Any experienced plainsman in his right mind would hesitate to stake his future on soils too sandy or too thin in a rainfall belt below 17 inches annually. Just that accounted for 60 per cent of the air-borne dust fogging up from the land during the dust bowl days. The direct cause for it was the risky decisions made back in the 1920's, decisions to plow arid land.

Another 38 per cent of the dust of those days came from the neglect of conservation practices on land where there was no physical excuse for erosion. Only about 2 per cent of the long distance dust could be traced by Soil Conservation Service surveys to first-grade plains land.

This shows one of two things, maybe both. It is easier to stay on top of good soil than poor soil. A great many of the best farmers first proved they were good by choosing good land to farm.

Getting down to details, there is some skill involved in preventing wind erosion during a long dry spell, though any fool can do it during a long wet spell. The stubble and straw left on the land from small grain and sorghum crops is the best protection known for cultivated land. Hence, during a series of good years wind-erosion control is automatic. One crop failure does not seriously interrupt the continuity of vegetative cover, but after two failures prompt and effective steps to insure the next crop are necessary.

On good deep soil in the semi-arid belt (17- to 25-inch rainfall) this is easy to do. Long dry spells are normal in the plains and should be counted on just as much as long wet spells. The longest one of record was from 1929 through 1940, with no year above normal and most of them below.

The agricultural experience of this 11-year dry period is interesting and most instructive. Soil blowing did not start with the drouth. It began to get bad three years later. This was after the trash was worn out and not enough was being added currently to replenish the loss due to natural decay.

Nature is full of compensations. When it turns dry, decay slows up and trash



lasts longer. It needs to last longer for the safeguarding of the soil surface. Still there are people who burn it off the fields, the waste places and all. That is destruction, both to soils and to beneficial wild life. Cooperating with nature is many times the easier and better way.

The other important fact about the "dust bowl" period is that it stimulated united effort to overcome the mistakes that had been made. The result was that dust storms began to decrease in 1938, in spite of the fact that below-average rainfall continued through the year 1940.

These facts caused many writers to refer to the drouth of 1934-37, which was really the period of severest dust storms in the midst of a drouth. That particular drouth should be dated 1929-40 to understand its real significance in relation to wind erosion.

It is true that this long drouth revealed the weakness of our hit-and-miss land-use program. However, the drouth of 1929-40 need not have caused a dust problem if we had stayed off the poor land. The next recurrence of this same problem will be caused by the same kind

of mistake. It is even now being repeated. If history repeats itself the follies of the 1940's now in process will make the dust bowl of the 1950's, just as those of the 1920's gave us the dust bowl of the 1930's.

I do not believe we can count on the same identical weather cycle again. Agriculturally speaking, the variable character of the plains rainfall has a better right to be called "normal" than the averages we lamely try to recognize.

The coincidence of depression and crop failure may not occur again. But one thing is relatively certain. The lowgrade land now being exploited under the urge of high prices cannot escape eventual abandonment under normal weather conditions. We don't expect the climate to change, for it probably hasn't changed in 20,000 years. If it did, it could only change for the worse. To get drier would decrease the amount of land suitable for cultivation. To get wetter would hasten the rate of soil fertility decline. If we are smart we will go along with what we've got, and try to cooperate with nature a little better than we did before.



ALEXANDER SPRUNT

By Herbert Ravenel Sass

WE used to call Alex Sprunt (he has never been Alexander to us) Accipiter velox. That is a name originally conferred upon him by Major Peter Gething, formerly of the British army, and now one of a little band of free companions of the woods and marshes of the South Carolina Low Country. Accipiter velox means swift hawk, and

you couldn't have a better description of the National Audubon Society's Alex Sprunt.

He has the keen face of a hawk and a hawk's piercing eyes. He is built like a hawk, lean, sinewy, wiry, without an ounce of fat on him. We can all bear witness to his hawklike swiftness in the field; not one of us but has a hard time keeping up with him, whether he is striding through the pinelands in pursuit of pileated woodpeckers and brownheaded nuthatches or poling a punt through some cypress-shadowed lagoon deep in the swamps where snowy egrets



Accipiter velox

Drawings by
Robert Seibert
Photographs
by
Edwin Way Teale



and white ibises nest. It isn't just a matter of keeping pace with him physically; his knowledge and understanding of birds are like a hawk's—swift, accurate, seemingly instinctive.

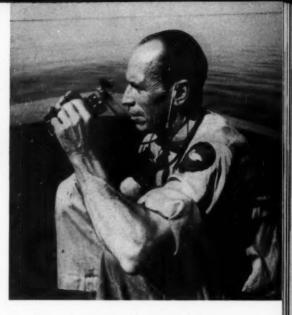
Far up in the pine tops something stirs. It is a small bird, no longer than a man's little finger, of nondescript color, difficult to see at all in the confusing lights and shadows shifting trickily amid the pine branches. There are a half dozen species that "it could be. If in an effort to "scoop" your companions, as a newspaper man would say, you take a gambler's chance and guess at

the identity of the bird, the chances are

abut five to one against you.

But before you've made your guess, before you've even got your field glasses focused on the elusive sprite, Alex Sprunt has named the species. Those hawk's eyes of his have somehow discerned the distinctive characteristics of the tiny creature up there in the tree tops-something about its shape, the cut of its tail, the way it moves. That hawk's brain of his, as swift in its decisions as a hawk's brain has to be, has told him that this bird is so-and-so and nothing else. And that, ladies and gentlemen, is what the bird turns out to be. Only once in a blue moon does Sprunt make a mistake.

There is another reason why Accipiter velox is a good name. His fellow woods-rovers here in his home country didn't invent that name; it is, as all bird people know, the scientific designation of the sharp-shinned hawk. Nobody around here ever refers to it under that crazy



moniker-of what significance is it that a hawk has sharp shins? Hereabouts we much more intelligently call the bird "blue darter" or "bullet hawk," excellent names because in its swiftness this Accipiter is almost like a streak of blue lightning and in its attack it is almost as accurate as a rifle bullet. The blue darter has that amazing hawk vision which seems miraculous not only for the quickness but also for the precision with which it sees everything around it. Watch a blue darter speeding in pursuit of its prey, twisting and swerving through an intricate copse or thicket and passing with bulletlike velocity through the maze of twigs and branches without striking one of them, and you realize that the accuracy of its vision is no less astonishing than its swiftness.

Alex Sprunt has that accuracy of vision also; he sees not only fast but truly. He is one of the most careful, as well as one of the swiftest and keenest, of the many field ornithologists who have worked in this rich Carolinian Low Country to which all American bird men, from Catesby and Audubon to Robert Cushman Murphy and Roger Tory Peterson sooner or later find their way. But while Accipiter velox is a fine

name for him because of what it connotes as to speed and precision in the field and as to the keen and eager mind of the man and his forthright and flashing personality and even as to the hawklike look of him—while in all these ways it is exactly right for Alex Sprunt, in another way it might lead to misconception unless reservations are noted.

For the blue darter hawk is a birdkiller, a hunter who pursues the little people of the air in order to take their lives, while Sprunt, on the other hand, has devoted his lifetime to protecting them and saving their lives. Since early youth the study of birds has been a passion with him. Coming to Charleston in 1901, when his father, the Reverend Alexander Sprunt, became pastor of the First Presbyterian Church in that city, he had the good fortune to grow up in the South Carolina Low Country, one of the most interesting regions of the Southeast from the ornithological point of view.

After his graduation from Davidson College, Sprunt started out to be a business man. With his friend, C. Bissell Jenkins, Jr., whose father was head of a large asbestos manufacturing company, he had a try at office work. This wasn't a very great success. But the Jenkinses owned Prospect Hill, a beautiful old rice plantation on the Edisto River abounding in wildlife, and young Bissell Jenkins and his brothers often took Alex down there with them. Probably it was at Prospect Hill that his interest in ornithology really began to develop into a passion.

It grew more and more obvious that Alex Sprunt was cut out for something other than office work. The first World War came along and he served two years in the navy, with his interest in birds growing keener all the time. After the war he was for several years with the Charleston Museum, the oldest natural history museum in America, where he did much to revitalize the ornithological department. Meanwhile, with the late

Arthur T. Wayne and Francis M. Weston as his principal mentors, he was acquiring swiftly and steadily that expertness as a field ornithologist which distinguishes him in any company. When in January, 1935, he joined the field force of the National Association of Audubon Societies, now the National Audubon Society, the event was a fortunate one for the feathered population of this country.

Alex Sprunt's home is a beautiful spot near Charleston amid pines beloved by rose-red summer tanagers-a house of just the right size and kind for him and his wife and their two children, overlooking wide stretches of salt marsh where snowy egrets shine like great milkwhite lilies in the sun and yellowcrowned night herons, plumed, crested, aristocratically aloof, may sometimes be seen in the golden haze of the long June afternoons. It is an enchanting spot and sometimes he must find it hard to tear himself away even to visit the other enchanting places to which his work takes him.

For his activities with the National Audubon Society have sent him to some of the most fascinating places in America from the naturalist's point of view, and this has given him a wonderful background of experience. His first work with the Society was as Southern representative in charge of the Southern bird sanctuaries. This meant taking care of all the Audubon bird refuges from North Carolina to Florida and west to the Rio Grande.

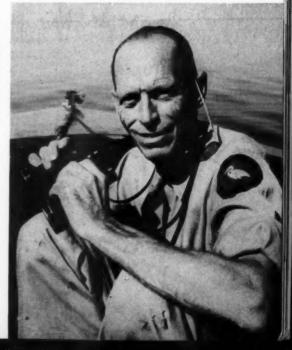
By car, by boat, by plane and on foot Sprunt patrolled his vast territory year after year, watching over the birds and the local wardens in direct charge of the birds, studying ecological conditions, keeping a close lookout for signs that the nefarious trade in egret plumes was being revived. It was often arduous work, but it was always interesting: boat trips through the teeming Everglades; plane flights over the bird-swarming Keys and the Tortugas; voyages along

the Southwest coast; days in the great Florida rookeries, perhaps the greatest in the world, in the midst of thousands of ibises, egrets and water turkeys; wonderful days out on the broad prairies with sandhill cranes and caracaras.

World War II inevitably brought interruptions and changes. Before its beginning Sprunt had begun to conduct Audubon Wildlife Tours in South Carolina, Florida and Texas, which have become one of the most important features of his work. During the war, when these tours were necessarily suspended, he began the lecturing which has now assumed an equal or even greater importance. His Audubon work now is divided between these two activities; that is, field tours in which he conducts parties into areas peculiarly interesting or extraordinarily rich in bird life; and illustrated lectures in which he presents the case for conservation, with particular reference to birds, to audiences all over the United States. In 1947, Sprunt received a Guggenheim Foundation Award, which will permit him to write, with the cooperation of E. B. Chamberlain of the Charleston Museum, the text of a book on the birds of South Carolina.

If you are interested in birds and in the conservation of birds, but haven't quite got your bearings yet, go on a Wildlife Tour with Alex Sprunt or go and hear him talk. He will show you new marvels to wonder at, new beauties to delight your spirit—above all, a crusade to be undertaken to save what still remains to us of our magnificent American heritage. There is no way of measuring the service that Alex Sprunt has done and is doing for the cause of conservation. His field tours have planted in the minds of thousands of persons an interest in the out-of-doors which has made many of them ardent champions of the conservation cause. His lectures, in schools, colleges, military camps, before Audubon clubs, garden clubs, conservation clubs, have been equally effective. His energy, his accuracy, his fire and verve, his enthusiasm, his sincerity instantly stir the interest and win the confidence of those who follow him into the field and those who hear him speak. They realize at once that this man knows his stuff, that there's nothing questionable about him, that what he tells you about birds isn't fiction but exciting and dramatic fact, that he really feels the delight in nature which he tries so successfully to communicate to others. It is because he is a sort of Accipiter velox of a man, as keen in the field and as true to the mark as that feathered ball of fire after which we have named him, that he can do the fine work he is doing.







A day with Alexander SPRUNT



A picturestory by Edwin Way Teale

Turkey vulture, above left, photographed by Allon D. Cruickshank. Black vulture, below, by Hugo H. Schroder; black vultures roosting in tree by Don Eckelberry. All other pictures by Mr. Teale, except that of kite on page 26.



A DAY in the open with Alexander Sprunt is a day that is never forgotten. It is a day in which fascinating sights, interesting information, sincere devotion to conservation and friendly good humor play their part.

My camera caught some of the events of such a day when it, and I, followed Sprunt around during a tour near Lake

Okeechobee, early last spring.

All along the way. Alex pulls up at frequent intervals to check on birds or to point out some interesting action in the swamps or stretches of palmetto that border the road. Migrating birds are thick in the hammocks of cabbage palms.

A flock of boat-tailed grackles sweep by. In a nearby pine tree, red-tailed hawks are nesting and two Audubon's caracaras alight in the top of a neighboring pine, while the party watches.

Gray strands of Spanish moss and airplants of many kinds add to the interest of the day. Sprunt, an all-around naturalist, reveals many of the interrelated features of the ecology of the region during his trips.

Coming to a palm tree that has been chopped down for the sweet "palm cabbage" of its heart, Alex becomes interested in the inner formation of the trunk, pointing out the absence of rings and the surprising hardness of the fibers. (Picture at right.)

The spotting 'scope (below, left) appears as the party arrives near a wide area of flooded lowland. It picks up shoveller, pintail and baldpate near the farther edge.

Circling vultures attract the attention of the party. Sprunt points out how it is possible to identify the shorter-tailed black vulture from the turkey vulture by the faster wingbeat of its peculiar flight even when it is almost on the horizon. (Opposite page.)











A rare sight-Everglades kite landing on twig. Photographed by Hugo H. Schroder.

NOON arrives and the group stops for a picnic lunch near the abandoned buildings of a cattle ranch. Sandwiches come out and Alex busies himself breaking up wood, pouring coffee into a pan, and heating up beverage for the picnic over an open campfire.

Stories of the long conservation battle in the South entertain the members of the party during lunch. Outside one duck-hunter's blind, on the shores of Okeechobee, some years ago, five rare Everglade kites were found. These birds, among the rarest of the region, had been wantonly shot down as part of the day's

"sport."

Few men know the wildlife of the South as well as Alexander Sprunt; no one that I know is doing more to preserve it. In the field, Alex gives no cut and dried lectures. Yet you end the day with more information, remembered and interesting, than a day of lectures would give you. No member of the party, at the start of one of the Audubon Wildlife Tours, is more interested or enthusiastic. During the day, you may find Alex on top of the station wagon watching for Florida cranes or down on his hands and knees investigating the home of a burrowing owl. At the sight of a

rare or beautiful bird, he is as excited as anyone. His interest is genuine. He can never get enough of the wonder and beauty of the Pageant of Nature.



A FTER the regular tour was over, Alex was still ready for more and we rode out on Lake Okeechobee to see the bird life of King's Bar. During this one day, we saw such thrilling actors in a wildlife show as limpkins, bald cagles, Florida cranes, glossy ibis and an otter.

In a shallow-draft boat on the lake, Sprunt relaxed on a busman's holiday watching birds. More than 2000 glossy ibis were sighted on this trip.

DURING a lull in the bird-watching, Sprunt concentrates intently on the job of separating an orange from its peel. (Picture at right.)

A few moments later, the bow of the boat pushes among cattails and arrowhead. On the stems of numerous waterplants, Sprunt becomes interested in clusters of white eggs, spheres about a quarter of an inch across. They are the eggs of a large snail on which both the limpkin and the Everglade kite—or "snail hawk"—feed; the snail known to science as Pomacea caliginosa. (Pictures below.)

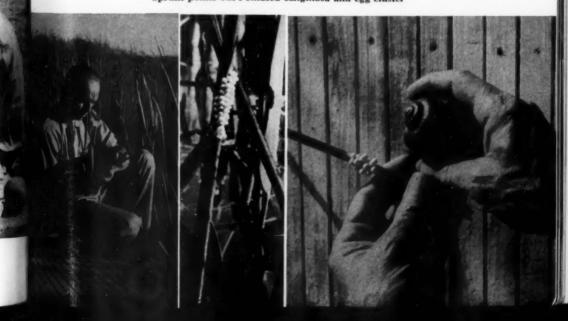
Empty shells, left by feeding limpkins, are found nearby. Struck together, these empty shells give off a ringing sound as

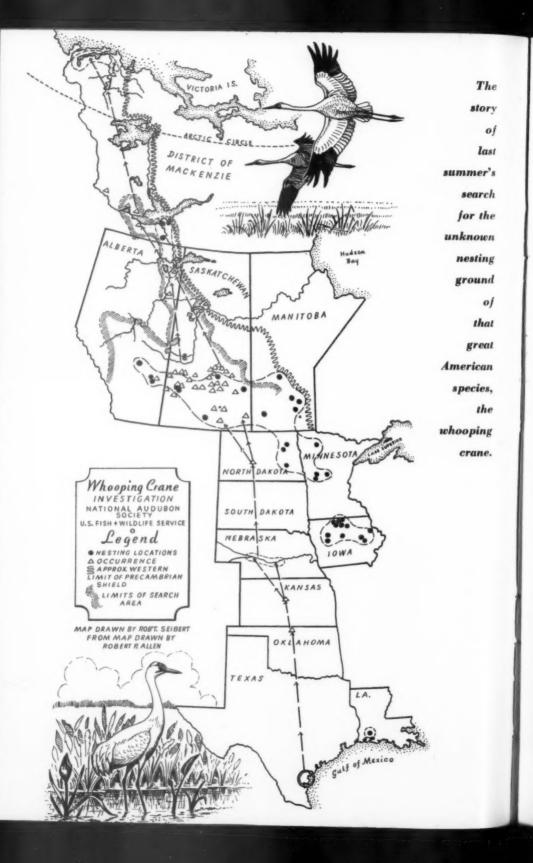


though made of metal. Sprunt holds eggs and empty snail shells together in the picture at right, below.

It is long after dark when the *Day With Sprunt* ends. But his days in the open always end in the same way—with Alexander Sprunt ready for more.

Sprunt points out Pomacea caliginosa and egg cluster





LOST: part of a CONTINENT

By Robert P. Allen

With drawings, by the author, of Cree Indians in the North Country



FIRST and last, nothing concerned with our search for the unknown nesting grounds of the whooping crane seems more startling, or more significant, than the knowledge that for over a quarter of a century no one has reported finding a nest of this rare and perennially vanishing species. In May, 1922, with the search for the "last" nest already a long established custom, two successful breeding pairs were discovered in southern Saskatchewan. There can be no possible doubt as to the authenticity of these two final reports, especially in the case of the very last (by a matter of a few days), for the uttermost nib of surviving offspring was efficiently collected and given immortality in the form of a tag with a number on it. And only four days old! It was evidently felt, 25 years ago, that this was unquestionably the epilogue. Grus americana was as good as finished. And collecting the last downy young would seem to have clinched the matter.

But it did not! No one was quite able to write an obituary. Whooping cranes continued to turn up in migration along the Platte River in Nebraska, were still reported as winter residents along the Texas and Louisiana Gulf Coasts. As in the oft-repeated story, reports of the species' demise were exaggerated.

Not only that, these amazing birds, the tallest, and as Dr. Elliot Coues so perfectly described them, the "most imposing" avian species in North America, continued to bring young south with them each autumn. This additionally significant fact has been carefully checked each year since the establishment of the Aransas National Wildlife Refuge, near Austwell, Texas, where most of the remaining whoopers winter, and where we are now beginning our tenth season of observations. As this is written we have just completed our count for 1947 and there are six young this winter, a figure that is an encouraging improvement over the previous annual average of four. It is a 100% increase over the three young of last winter.

Placing these various pieces of information side by side we notice at once that there is a large and rather astonishing gap: the present nesting area itself. Where is it?

When it was decided, late in 1944, to undertake a vigorous campaign on behalf of the whooping crane, the cooperating agencies, the National Audubon





These two photographs are of a captive bird, of which there are two—both now in the Audubon Park Zoo at New Orleans

Society and the U.S. Fish and Wildlife Service, saw at once that the first and most obvious need was to find these unknown nesting grounds. Once again the search was on, this time in dead earnest. this time with the objective a determination to save the species from extinction. In order to appreciate to the full the true character of this new enterprise it must be known that this same search, off and on, has been in progress for nearly 100 years. It was in 1858 that Spencer Fullerton Baird pointed out that not one skin of the whooping crane reposed in a public museum of the United States and from that moment the search was under way. Of course, it was not an immediate nor a continuous affair. It was in men's minds, though, and when opportunities presented themselves it reached the active phase. And it went on. Large, conspicuous species are the first to become rare, and sometimes extinct . . . it is practically a rule. . . .

We cannot guarrel too much with the acts of another generation. In most respects their viewpoint was sound, for the place and the time. But it seems doubtful if even they could have foreseen how rapidly the whooping crane would disappear as a breeding species throughout its known range. When we consider that its Pleistocene remains have been found in both California and Florida we have a vague, and intriguing, notion of the possible limits of its preglacial greatness. In recent times this range was evidently more restricted but it was still vast, just how vast our historic record cannot tell us for certain.

However, we have a fairly continuous list of authentic nesting reports dating from the 1860's, nearly all of them supported by the actual eggs and many accompanied by skins. We can chart these nesting locations and it is revealing to study both distribution and dates as we do so. For we learn that the last (recorded) nest found in Iowa was discovered in 1889; the last in Minnesota in 1889; Manitoba, 1900; North Dakota, 1907; Alberta, 1914; Saskatchewan, 1922. Of course, this is only the record and we do not assume responsibility for its accuracy. Nevertheless, on this basis, and it is the best that we have, there was a steady retreat northward covering a period of some 39 years. In little more than a human generation, this "large, conspicuous" bird was gone as a nesting species from its known breeding range, an area spread out over three states and three provinces.

How long has Grus americana in its present form been on the earth? Since the Pleistocene certainly. But within a space of the merest fraction of its long existence it disappeared as a breeding species and became an occurrence rarity throughout the heart of its modern range. Yet it survives. Almost a century after its extinction was virtually forecast, 35 years after Forbush assumed that its end was a foregone conclusion, a quarter of a century after finis was



Typical small river in the Mackenzie basin; spruce, willow, birch, poplar (northern mixed forest type.)

written at Muddy Lake, Saskatchewan, where the "last" young was collected, it is alive and vigorous, more imposing and more wary than ever, a challenge to the worst and best that we can muster.

We have now searched intensively for the nesting grounds over three springs and summers. Because there have been countless rumors and pet theories to run down the initial job of eliminating every possibility has been a difficult and often a heart-breaking task. The work of Fred Bard, Jr.; Dr. Olin Sewall Pettingill; Robert H. Smith and Dr. L. H. Walkinshaw has been outstanding and much credit is due them and the many volunteer cooperators who have aided the project so unselfishly.

In June, 1947, with Bob Smith, Flyway Biologist of the U. S. Fish and Wildlife Service as pilot, I flew nearly 6,000 miles between Prince Albert, Saskatchewan, and an area just north of Great Slave Lake, North West Territories. We had two pronounced advantages: (1) many important areas below the line of settlement, from Grand Prairie, Alberta, east to southwestern Manitoba, had already been eliminated by previous search; (2) a crackerjack search plane, a Grumman two-engine am-

phibian with ranges up to 700 miles, depending on load. In addition, Larry Walkinshaw agreed to search an extensive area east and north of Prince Albert and Nipawin. It was Bob Smith's primary assignment to survey waterfowl populations north to Great Slave Lake, but since duck marshes and whooping crane habitat have much in common our arrangement proved to be a perfect one.

The bulk of the whooper migration reports in Canada each spring, reports compiled so faithfully by Fred Bard at the Provincial Museum in Regina, pointed emphatically north northwest from west-central Saskatchewan (Beaver River) towards the northeast corner of Alberta (Athabaska Delta.) Starting at Meadow Lake we began a painstaking, low-altitude hunt-lake by lake, muskeg by muskeg. We even 'doubled back to recheck current rumors. But we searched some 3000 miles by air, as far as the region of Lake Athabaska, before finding anything that looked to us even remotely like whooping crane habitat.

Although the far reaches of the North are vast beyond belief our search area was reduced to fairly reasonable dimensions by the narrowing influence of the sterile, rock-ribbed Shield country to the



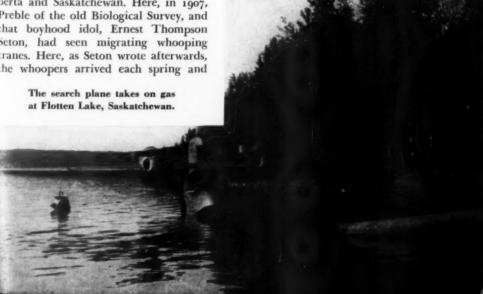
In distance, Lake Claire marshes, Alta., in foreground, Fort Chipewyan and edge of Pre - Cambrian Shield. east and hilly, timbered country to the west. Between these two regions lie the long, slim, twisting fingers of one of the world's great river systems, the drainage channels of the Athabaska, Peace, Slave and mighty Mackenzie, flowing northward from central Alberta to the Arctic Sea. Along with the Churchill route, which connects on the east with Hudson's Bay, this has been the great human highway north since Alexander Mackenzie first followed it to the coast in 1789. And for century upon century these rivers have carried untold quantities of plant wastage into the huge cold storage vault of the Arctic waters, have been responsible for building rich deltas and waterfowl habitats at Athabaska, Great Slave Lake and Mackenzie Gulf. Because, to a considerable extent, of this annual delivery of these basic food materials by way of the great northern watersheds the Arctic has been unbelievably abundant in marine life and its related animal forms.

On June 21, from a precarious perch high over the Birch Mountains, we looked down with equal delight and awe at the great spread of the Lake Claire marshes, and off towards the broad, complex delta of the Athabaska. Here was whooping crane country, the first that we had seen north of the now lost prairie grasslands of southern Alberta and Saskatchewan. Here, in 1907, Preble of the old Biological Survey, and that boyhood idol, Ernest Thompson Seton, had seen migrating whooping cranes. Here, as Seton wrote afterwards, the whoopers arrived each spring and

moved on north with the "waveys" (snow geese). Here they returned in early fall with their one or two brown young and on these same marshes, as Bellalise the half-breed told Seton, the Chipewyans killed them. "If you get the two old ones," he said, "the young ones are easily killed, as they keep flying low over the place."

Undoubtedly whooping cranes once nested in this region but the Indians must have long since destroyed this unit of the population. Only migrants, moving quickly through remote stretches of the area, would be safe. Forty years after Seton we saw not one.

In the whitetop and sedge along the north shore of Lake Claire we did see several thousand bison, the only truly wild herd left in North America. Moving swiftly along above the broad backs of these great shaggy beasts Bob Smith and I lived in reality the most fantastic dream of our youth: a flying carpet and a charging herd of wild bison. The prairie marsh stretched away for miles, marked by wallows and deeply-trodden trails, with here and there an old bull standing guard, his hoofs digging at the soft earth, his tail standing straight out and arched at the tip to warn of his







Tepee and houses of Slavey Indians at H River

suspicion and anger. There were prairie chickens, too, and ducks, but not as many ducks as buffalo! We saw no whooping cranes.

On north, from beyond the Peace Delta to Great Slave Lake, we hedgehopped broad salt plains and unexpectedly extensive aspen parklands. There we found a few sandhill cranes (probably the greater sandhill) but no whoopers. All this is old whooper nesting grounds: Salt River, Fort Resolution, the south shore of Great Slave Lake. More recently migrating whoopers have been sighted near Pine Point (20 in 1917, and 2 in 1944) and a month before our landing at Hay River a stray "single" had visited that area on two consecutive days where it was observed by the crew working on the airstrip. One was killed by a Slavey Indian at Hay River mouth about 1923.

Three hours by plane from the Arctic Circle we turned around, our time run out, our schedule completed, our 1947 search ended. We knew then that our lost area must be on north, possibly in the same Anderson River country where

Roderick MacFarlane saw migrating whoopers years ago. One thing seems certain: the place we are looking for is in virtual truth a lost land. It is probable that no human being, white or aboriginal, lives there, at least not in spring and summer. This would account for the unknown character of this enchanted spot, a never-never land that has resisted discovery by a naturalist since earliest times.

Two recent events offer encouragement. From Alaska, that veteran of the Mackenzie Delta country, Charlie Gillham of the U.S. Fish and Wildlife Service, writes me as follows: "They could be on the Anderson. . . . There are no natives on Anderson River. Another little known area is the Eskimo or Husky Lakes (a great nesting area) just west of the Anderson. They could easily be there as no one invades that region, especially in summer months and mosquito time. . . . I will bet my hat they are not in the Mackenzie Delta." Charlie has worked the Mackenzie the hard way, by canoe, and has talked with the natives.





at He River settlement, in Northwest Territory

This advice checks perfectly with geography, logic and history. It was at old Fort Anderson that MacFarlane saw flocks of whoopers moving north in the spring, south in the fall. Few people have been there since except in winter. And this region lies at the logical terminus of the long flight line from the Gulf Coast northward.

Finally, on September 10 last, a trader at Fort Chipewyan by the name of Fraser, a man well acquainted with the local bird life, saw 24 large birds flying in low from the north and preparing to land in a section of the Athabaska Delta some five miles south of the settlement. On seeing him and his boat the flock moved on without alighting. Fraser is sure they were whooping cranes. How many of them were young-of-theyear we have not been able to learn, but Cpl. Robson of the R. C. M. P. Detachment at Chipewyan, who is making further inquiries, has alerted the entire district.

Next year? The Fish and Wildlife Service will send Bob Smith to the little known Eskimo Lakes and to the lost

lands around the lower Anderson River, where he will conduct an aerial survey of waterfowl populations. And I plan to be in the seat next to him, as observer. With any sort of luck we should find what we have been searching for. If we do locate nesting whoopers it will then be possible-and only then-to look for the answers to the most vital questions that face our entire investigation. How many pairs of whooping cranes are actually nesting? What are the decimating factors on the breeding grounds? Are any of these birds brooding infertile eggs? What is the percentage of hatching and rearing success? Is the duration of incubation affected by the 24-hour daylight? Is the entire breeding cycle "telescoped" by environmental conditions? When do the adults molt? Are they flightless during the molt?

And finally, from these and many other answers that we can learn only on the nesting grounds, what chance is there for the whooping crane to survive under existing natural conditions? That is the chief question we must answer, and answer soon.

Another great



Cocoanut palms photographed by Cruickshank.

Close-up of part of the speakers' stand at the Dedication Ceremony, December 6. (Photograph by the *Miami Herald*)

44 H ERE in Everglades City we have the atmosphere of this beautiful tropical area. Southeast of us lies the coast of the Everglades Park, cut by islands and estuaries of the Gulf of Mexico. Here are deep rivers, giant groves of colorful trees, prairie marshes and a great many lakes and streams.

"In this park we shall preserve tarpon and trout, pompano, bear, deer, crocodiles and alligators and rare birds of great beauty. We shall protect hundreds of all kinds of wildlife which might otherwise soon be extinct.

"The benefits our nation will derive from this dedication will outlast the youngest of us. They will increase with the passage of the years. Few actions could make a more lasting contribution to the enjoyment of the American people than the establishment of the Everglades National Park."—From the President's Speech.



conservation victory"

THE establishment of the Everglades National Park is "a project whose great value lies in the enrichment of the human spirit," said President Truman in his speech at the dedication ceremonies on December 6. "We have permanently safeguarded an irreplaceable primitive area," the President added. In his address, Senator Spessard L. Holland of Florida gave specific credit to the conservation efforts of the National Audubon Society.



Wood ibis rookery by Allan D. Cruickshank

From the address of Senator Holland:

"A SIDE from the public and civic agencies which have functioned so effectively in Florida in the long effort to create a great national park, I feel that this is the appropriate time to call public attention, with gratitude, to the big parts played by two great organizations, the Florida Federation of Women's Clubs and the National Audubon Society. The club women acquired, 31 years ago, the Royal Palm Hammock and preserved it against the destruction which occurred in most of our other stands of native royal palms. As a result the Royal Palm Hammock, recently deeded to the Federal Government, has become part of the park, bringing to the park the most majestic royal palms in our nation along with many other native subtropical trees.

The Audubon Society supplied the supervision, the equipment, and the wardens by whose efforts, beginning in 1901, many species of the incomparable bird, animal, and fish life of the park region were safeguarded and, in some instances, saved from extinction. The thousands of Florida club women and the tens of thousands of Audubon members throughout the nation have every right to feel happy today that their devoted efforts have borne such good fruit.

I sincerely hope that the National Park Service which now begins its patient labor of years to safeguard this immense wilderness and at the same time make it subject to visitation and enjoyment by millions of citizens will have the continuing ardent support of these two great organizations as well as the sympathetic interest and backing of lovers of nature everywhere and of the American public."



The green Everglades stamp design displays the American egret long familiar to members of the National Audubon Society.

Further excerpts from the President's speech

OUR national park system is a clear expression of the idealism of the American people. Without regard for sectional rivalries or for party politics, the nation has advanced constantly in the last seventy-five years in the protection of its natural beauties and wonders."

THE battle for conservation cannot be limited to the winning of new conquests. Like liberty itself, conservation must be fought for unceasingly to protect earlier victories."

THE establishment of this park is an object lesson and an example to the entire nation that sound conservation depends upon the joint endeavors of the people and their several governments. Responsibility is shared by town and state and the Federal Government; by societies and Legislatures and all lovers of nature."

FOR conservation of the human spirit, we need places such as Everglades National Park where we may be more keenly aware of our Creator's infinitely varied, infinitely beautiful, and infinitely bountiful handiwork. Here we may draw strength and peace of mind from our surroundings."

"Here we can truly understand what that great Israelite psalmist meant when he sang: 'He maketh me to lie down in green pastures, He leadeth me beside still waters, He restoreth my soul.'"



Cypress swamp by Allan D. Cruickshank

CAN YOU TALK NATURE?

- By Alan Devoe -

A MAN who tries to keep his eye on the natural world, and on what naturalists have to say about it, is constantly being puzzled by the naturemen's terminology. But we have to know the nature-language, if we're to understand what the watchers of our universe are discovering and recording about it.

Try finishing each of the following statements with the phrase that rightly completes it. The answers (no looking till you

finish, please) are on page 66.

Quiz-masters commonly assume an air of chilly superiority. I should like to be an exception. A large number of these statements I probably couldn't have completed correctly, without the help of a shelf of nature-books and a dictionary. Also, I've tried the quiz on a good many people, before it now comes to you; and if you can score 60 (scoring 5 for each right answer), you're way ahead of most.

Now then:

 Finding yourself with a yapock on your hands, you may most sensibly (1) apply medication and a bandage; (a) enter it in the horse-show; (3) use the fluffy part to stuff a pillow; (4) present it to your zoo.

2. Whether or not you ever see a megaphone or a megalomaniac or a case of acromegaly, when you get a glimpse of a megatherium you will almost certainly (1) be struck by its delicate tininess; (2) be in a museum; (3) be reminded of the binomial theorem; (4) be well above the timber-line.

3. Things that are glabrous are never (1) mature; (2) male; (3) hairy; (4) plainly visible.

4. If you have frequent occasion to employ the word "sessile," you are probably (1) an astronomer; (2) a botanist; (3) a comparative psychologist; (4) a student of bird migration.

5. For a happy career in speleology, it is a grave drawback to have (1) a fear of insects; (2) a fear of enclosed places; (4) a fear of cats; (4) a fear of

extremely bright lights.

6. A man experienced in dealing with squeteagues would most likely have gained his experience in (1) trapping; (2) fishing; (3) mountain-

eering; (4) fur-farming.

7. If you wanted maximum information about a blenny, your best bet would be to talk to (1) an Arctic explorer; (2) a geologist; (3) an authority on soil conservation; (4) an authority on fish. A carbuncle and a peduncle are not avuncular; but a ranunculus is (1) a phenomenon of the sky;
 (2) capable of inflicting a severe bite;
 (3) capable of flowering;
 (4) used in making maps.

9. A man intent on a raceme is probably (1) observing a glacier; (2) observing a botanical specimen; (3) using a compass; (4) roped to his com-

panions.

10. If you want to see filoplumes, you might try looking at (1) the sunrise; (2) a column of smoke; (3) a waterspout; (4) a whippoorwill.

11. Tertiaries are worn by (1) deep-sea divers; (2) moles; (3) scarlet tanagers; (4) mountainclimbers to keep them from slipping on the ice.

12. Maxillary is the term for (1) the action whereby sap ascends in trees; (2) a jaw-bone; (3) an arm-pit; (4) the larval stage of certain kinds of insects.

13. The canon of Morgan was (1) a nature-minded British clergyman with whom Gilbert White corresponded; (2) famous for his association with John James Audubon; (3) enacted to promote conservation; (4) enunciated as a principal for animal psychologists.

14. The one of the following that is not a marsupial is (1) an opossum; (2) a kangaroo; (3)

a woodchuck; (4) a wombat.

15. Water-snakes are (1) alluvial; (2) millennial; (3) natatorial; (4) hebdomadal.

16. When a naturalist describes one of the feature of a species as lanceolate, he is probably talking about (1) its fur; (2) its habit of prolonged hibernation; (3) its leaves; (4) its eyes.

17. Pitchblende is (1) a source of radium; (2) sea-water diluted by fresh water from a rivermouth; (3) the substance out of which bees fashion their honeycombs; (4) the technical name for a chorus of bird-song.

18. In the ordinary course of events, gneiss is or are found (1) blooming in high mountain meadows; (2) in the form of stratified rock; (3) in herds on the prairie; (4) by taxidermists when they

cut open the bodies of birds.

19. Should you find yourself in possession of some guano, you would have a good opportunity for (1) fertilizing your garden; (2) gradually breaking their spirit and training them to run in harmess; (3) noticing their similarity to the camel; (4) using the guano to make a cooling and refreshing drink.

20. If what a scientist calls an accipiter were to strike what the same scientist might call his occiput, the scientist would probably (1) get a headache; (2) look up the result in his table of logarithms; (3) deduce that the season was Easter; (4) feel a sharp pain in his foot.

THE PRESIDENT'S to You





Among the highlights of our 1947 Convention was the presentation of the Audubon Medal to Dr. Hugh H. Bennett, Chief of the U. S. Soil Conservation Service. For further details about our 1947 Convention see pages 45-51.

THE threat to the integrity of the present Olympic National Park has been measurably reduced by the effective opposition of the country's conservation groups to the passage of those bills which provide for lopping off boundary areas. These bills include S-711, S-1240, HJ Res.-84, HR 2750, HR 2751, HR 4053 and HR 4054. The Secretary of the Interior has announced that he will report adversely on all of them. Mr. Newton B. Drury, Director of the National Park Service, states:

"At the Congressional hearing held in the park in September, representatives of the lumber interests clearly stated that their support of pending boundary-adjustment bills was only as a first step toward getting the remaining accessible and merchantable virgin forests of the Olympic peninsula excluded from the park. This revelation, together with the strong and united stand taken by the conservation interests of the nation, convinced the Department and the National Park Service that it would be dangerous to the integrity of the park to take any position other than to recommend against any boundary changes."



"BARRETT'S WILD WEST SHOW"

During the summer, the House Subcommittee on Public Lands, Frank A. Barrett of Wyoming, chairman, held hearings in western states on the subject of grazing on public lands. These hearings, known in the western press as "Stockman Barrett's Wild West Show," will contribute to the defeat of the present attempts of cattle and sheep associations to gain greater control of administration of public grazing lands, and



Mrs. Paul Rittenhouse, National Director of the Girl Scouts, and Mr. Ludlow Griscom laugh heartily at one of Mr. Bennett's witticisms.

even title to them. The *Denver Post* said editorially on September 11:

"Representative Frank A. Barrett of Wyoming has made a wild west show out of his investigation of Forest Service grazing policy. We suppose that under his ringmastering, his congressional lands subcommittee has reached the conclusions he intended it to; but the public, which paid for the fortnight's spectacle, gained little to clarify the bitter dispute between stockgrowers and forest rangers.

"The immediate center of controversy was the Forest Service's recommendation for reduction in grazing permits in the forest lands. The Forest Service holds this necessary to protect watersheds, a matter of vital interest in the arid West. Stockgrowers have charged the Forest Service with being arbitrary and unreasonable.

"Stockman Barrett, it seems fair to state, stacked the hearings against the Forest Service. Cattlemen and sheepranchers got friendly treatment and hours of testimony. Conservationists, sportsmen and water users were badgered and given only a fraction of the hearing accorded their opponents."

From an editorial in *The Daily Sentinel* of Grand Junction, Colorado, September 8:

"The general public had labored under the impression that congressional hearings were for the purpose of establishing facts and hearing testimony from all sides involved in a controversy worthy of congressional consideration. But the total lack of dignity and of fairness that characterized this hearing to establish facts in the stockmen—Forest Service controversy disillusioned any neutral observer as to the real purpose of this hearing as staged in Grand Junction.

"God forbid that 'The American Way,' of which we all boast, shall ever be judged by such biased procedures as characterized this hearing that was made before a board weighted in favor of one side; and presided over by a chairman, also a party to the controversy, and who, in effect, became a prosecutor, missing no opportunity to denounce the other party in the dispute, who was given limited opportunity to present its case."

From the remarks of Mr. Charles O. Miller, a Craig, Colorado, stockgrower, in

the Denver Post of September 24, we quote:

"The public lands hearing held in Rawlins, Wyoming, September 2 and 3, was the most disgusting farce I have ever witnessed. I went to Rawlins with the idea that I could learn some facts that had escaped me in 35 years close association with grazing land, livestock and irrigation water. All I got for my efforts was the spectacle of a congressional committee, dominated by one man, making a vituperative attack upon the Forest Service. In my 16 years' use of forest grazing I have witnessed the gradual transformation from one of abundance of all types of mountain vegetation to one of overgrazed and eroded areas that are tragic to behold."

MAKE YOUR OPINIONS KNOWN

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On October 8, the House Subcommittee on Public Lands addressed a letter to Secretary of Agriculture Anderson, making specific recommendations for the administration of national forests in the interests of the present livestock grazing permittees. The most important proposal therein, it seems to us, is that an amendment to the Forest Act of 1897 be made for the purpose of establishing grazing as a basic use of the national forest lands. All conservationists should strongly fight any such amendment. In our opinion, grazing use of national forests and other public lands should remain in the category of a permitted encroachment and never be established as a basic use. If it were, we might as well kiss goodbye to these grazing lands as a natural resource. It would be well for our readers to express their opinions on this subject to the Hon. Clinton P. Anderson, Secretary of Agriculture and to the Hon. Richard J. Welch, chairman of the House Committee on Public Lands, House Office Building, Washington, D. C.

Mr. Barrett's undesirable HR 1330, which would serve, in effect, to eliminate from the Jackson Hole National Monument in Wyoming those portions which are most vital to it, remains on the unanimous consent calendar of the House. Write to your representatives in Congress and ask

them to object to consideration of this bill. It would be well, also, for you to advise the Hon. Richard J. Welch, chairman of the House Public Lands Committee, of your opposition to the passage of this bill. For reference data, see page 172 in the May-June, 1947, issue of Audubon Magazine.

DUCK STAMP AMENDMENT

HR 3802, with regard to duck stamps, remains in the House Committee on Merchant Marine and Fisheries, of which the Hon. Alvin F. Weichel is chairman. The Hon. Raymond H. Burke, also of Ohio, is chairman of the Subcommittee on Merchant Marine and Fisheries. Our Society has gone on record in favor of increase in the duck stamp price from \$1 to \$2 and of amendment of the original Duck Stamp Act so as to authorize use of a larger proportion of the available monies for enforcement. We have expressed our oppo-



John H. Baker introduces the speakers

sition to the provision in HR 3802 for the opening of refuges to hunting at the discretion of the Secretary of the Interior. We believe that such a provision would be wholly inconsistent with the primary purposes for which the refuges are established.

OPPOSE HR 4108

HR 4108, which would reduce the Parker River National Wildlife Refuge in Massachusetts to the limits of Plum Island, remains on the House Calendar. It would be well to advise your own representatives in Congress of your opposition to the passage of this bill. Messrs. Weichel and Burke of Ohio are chairman and sub-chairman of the Committee on Merchant Marine and Fisheries which reported this bill to the House.

EVERGLADES NATIONAL PARK

HR 3378 and its companion bill, S-1554, designed to implement action with regard to establishment of the Everglades National Park in Florida remains in the House and Senate committees on Public Lands. Passage of the House Bill was blocked by the Subcommittee chairman, Mr. Barrett of Wyoming, although the bill was favored by the Department of the Interior, State administration of Florida, the Everglades National Park Commission, your Society and other conservation groups. The chairman of that committee is the Hon. Richard J. Welch of California. On December 6th, the Everglades National Park was dedicated at a ceremony held at Everglades, Florida, and is reported on elsewhere in the issue.

On November 1, the Society opened an office in Miami in the McAllister Hotel Arcade. This will serve as a base for the answering of inquiries about enrollment in Audubon Wildlife Tours in Florida; will carry a consignment stock of Service Department items for sale; will solicit memberships and contributions and, in general, will promote the many phases of the Society's activities.

ADDITION TO MAINE CAMP PROPERTY

Those who have attended the Audubon Nature Camp in Maine realize how important it is that the Society have permanent right-of-way across the former Nash property on the immediately opposite mainland and the importance, also, of avoiding objectionable developments in that area. It is good news that, through the generosity of a donor who wishes to remain anonymous, the Society has been able to acquire that property. This, in addition, will enable us to better solve the problem of parking of cars of staff and students and



Canada goose for a Princess

furnish additional storage space for supplies. The anonymous donor came to the rescue at a moment of great need, and we are duly appreciative.

TRIBUTE TO AUDUBON

What a fine tribute to Audubon, the artist, when Ambassador and Mrs. Lewis W. Douglas presented to Princess Elizabeth and Lieutenant Philip Mountbatten a dozen glass plates with engraved reproductions of birds painted by Audubon! These make an exquisite gift and the world-wide interest in this wedding and the presents will serve, incidentally, to carry the name of John James Audubon into many a hamlet and home in which he was heretofore unknown.

GLENN CHANDLER-NEW WARDEN

A new warden has been appointed for the Okeechobee Lake-Kissimmee Prairie area in south Florida. He is a nephew of our former warden, Marvin Chandler, now unfortunately deceased. The new warden's name is Glenn Chandler. It is his duty to protect the wildlife on the northwest shores of Lake Okeechobee, on the grassy islands in that lake and on the prairie stretching northwestward to the vicinity of Lake Istokpoga.

GREAT DOINGS IN CALIFORNIA

An Audubon Nature Camp will be operated in California in the summer of 1948 and will be situated at the Sugar Bowl

Lodge at Norden, near Donner Pass. This is at a high altitude in the Sierra, just off the main road from Sacramento to Reno. The situation is ideal for observation of a variety of flora and fauna, and summertime in the High Sierra has great lure for all of us. A generous grant by the Rosenberg Foundation of San Francisco has made it possible for us to meet the promotional costs of establishing this camp. Staff of the camp will be drawn primarily from California sources and prospectuses, with details of the summer sessions, should be available by February 1st.

SOUTHERN CALIFORNIA REPRESENTATIVE

Mrs. J. H. Comby of Whittier, California, until recently president of the Los Angeles Audubon Society, has accepted the position of Southern California Representative of your Society. She will keep in touch with government officials in that area dealing with conservation and nature education matters; will organize branches and affiliates, lecture in our behalf and, in general, promote all phases of the Society's work in southern California.

SANCTUARY DIRECTOR

Mrs. O. M. Stultz, of Los Angeles, also a former president of the Los Angeles Audubon Society and always active in its affairs, has accepted the position of Director of the San Gabriel River Wildlife Sanctuary. Necessary improvements are being made to buildings and in equipment. Mrs. Stultz will receive all visitors and will conduct groups, by appointment, on the sanctuary trails. Steps have been taken to better equip the main building as a nature museum, and a consignment stock of Audubon literature and Service Department items will be constantly maintained. These appointments are of good augury for effective development of the Audubon program in southern California.

ABOUT OUR CONVENTION

At the convention in October, a most interesting series of addresses on the subject of waterfowl were made by Mr. Day, Director of the U. S. Fish and Wildlife Service; Dr. Gabrielson, former Director, now President of the Wildlife Management Institute; Mr. Bartley of Ducks Un-

That sunny California smile-Mrs. Stultz (left) Mrs. Comby (right)



limited, Mr. Bob Smith, Flyway Biologist of the Fish and Wildlife Service, and Mr. Shoemaker, Washington Representative of the National Wildlife Federation. It is our present plan to have these addresses printed in leaflet form and, in due course, distributed. Perhaps the most significant point brought out was the wide difference in the number of ducks counted by the Fish and Wildlife Service and Ducks Unlimited in the same area in Canada during the past breeding season. Based upon a selected area, the Fish and Wildlife Service's figure was 27,287,000, and that of Ducks Unlimited was 110,000,000.

MEDAL TO DR. BENNETT

The principal event at the annual dinner was the award of the Audubon Medal for distinguished service to conservation to Dr. Hugh Hammond Bennett, Chief of the U. S. Soil Conservation Service. In making the presentation, Ludlow Griscom said:

"The National Audubon Society has instituted a bronze medal, which is awarded from time to time to an eminent man who has rendered outstanding service to the cause of conservation. The medal was designed by the distinguished sculptor, Paul Manship. One of the reasons we are gathered here tonight is to honor a great American, an expert in soil conservation, of world-wide renown. Hugh Hammond Bennett. Originally a 'tarheel' from a North Carolina farm, he entered the government service as a young man and has devoted his life to preaching the gospel of soil conservation. He has surveyed the agricultural possibilities of the Canal Zone, Alaska, Mexico and Cuba; as a consulting expert has visited Venezuela and South Africa, and has served on various international committees.

"He has fought the two enemies, erosion and desiccation, and taught us how to overcome them and prevent them in future. His books and articles are many and he is naturally the recipient of honorary degrees. It was largely the result of his agitation that the Buchanan Amendment to the Agricultural Appropriation Act of 1930 was adopted. This brought money for re-

search on the cause and control of soil erosion and led to the establishment of ten experiment stations in various parts of the country.

"Next a Soil Erosion Service was established in the Department of the Interior and Bennett headed it. When the Soil Conservation Act became law in 1935, Bennett and his work came back to the Department of Agriculture, where he has since served as Chief of the Soil Conservation Service. For years our farmers and ranchers have been taught not to cut down all their woodlots, the trick of contour plowing on slopes to prevent erosion, to stop overgrazing of cattle on the range, and millions of acres of 'dust bowl' areas are being returned to productivity.

"Nominated unanimously by a special committee, including scientists and experts outside the Society, the Directors of the National Audubon Society take pleasure in awarding its medal to Dr. Bennett. As Chairman of the Board, I read the following citation:

Hugh Hammond Bennett, greatest soil evangelist of all time, true conservationist, whose teaching is now basic in sound agriculture throughout the world, whose achievements supply a chapter in modern school text books of American social history. Consulted by presidents and ministers of state, he never lost the common touch. Philosopher as well as scientist, he had the courage to denounce Americans as a nation of destroyers, careless, greedy, in a hurry, terribly efficient. Disappearing woodlots were leaving barren hillsides, scarred with erosion gullies. Overgrazing and overplowing were turning mountain pastures and lush prairies into deserts, which blew away in wind storms. With boundless good will. he has shown us how to restore our damaged land, how to prevent further destruction. He gave us hope, a new gospel, and proved that the priceless gift of great natural resources can be both enjoyed and maintained from generation to generation.

MARK YOUR 1948 CALENDAR

The date of the next annual members' meeting has been set at Tuesday, October 19, 1948. We hope you will put this date on your calendar now. The convention will presumably extend over the dates of October 16-19, inclusive. Tentative plans as to program will be sent to all branches and affiliated groups before next summer.



CONVENTION FLASHES

Saturday, October 18, 1947, was a big day at the Audubon Nature Center in Greenwich, Conn., when more than 400 Audubonites gathered for good fellowship. Above: John H. Baker makes some announcements. In left foreground, Mrs. Paul Moore, member of N.A.S. Board of Directors, looks and listens.

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ers' per ate ill Ocas hes Turn about is fair play: N.A.S. Director, R. Gordon Wasson (center, right) listens with absorbed interest while Bob Allen sounds off about his pet project: whooping cranes. Below (center) Bob Allen gives undivided attention to Mr. Wasson's discourse on his pet project—the life and letters of W.H. Hudson.







Electrical bird games (above) in the Nature Center Museum fascinate people of all ages.

Bert Harwell (below) extols the virtues of his favorite bird, the dipper, while two Columbus, Ohio, birders—Carmen Warner (right) and Marguerite Werner—listen enthralled.



Yankee librarian) and Charlie Ayres of Ottumwa, Iowa.

OPEN HOUSE at the NATURE CENTER

Miss Farida Wiley (right) of the American Museum of Natural History, and instructor at both Center and Camp, leads a bird walk through the autumn-colored woodlands.

The weather was warm and comfortable so that delegates, members and friends enjoyed exploring the trails that lead through field and forest, beside streams and lakes on the 400-acre sanctuary that is the Audubon Nature Center.

All Nature Center photographs by Gene Heil.







Charles Mohr, Educational Director of the Nature Center, squints an eye in an effort to spot a Cory's shearwater while Charlie Ayres awaits his turn at the telescope.

Roger Tory Peterson (below) couldn't see the birds through the foggy curtain so he points them out in his book instead.

> Photographs at left by Gene Heil; Those at right, by Ray Crewson.



BIRDS, PEOPLE AND FOG AT MONTAUK POINT



Sunday, October 19, was a foggy day, worse luck, but five bus loads of bird-watchers remained undaunted. They left Audubon House at six in the morning, visited various points of interest on Long Island, finally arriving at Montauk Point, the tip of the Island and more than 100 miles from New York City. It added up to real sport!







In the midst of world crisis, conservation is a critical problem. A message from a member of the Board of Directors of the National Audubon Society

Today's Great Challenge

by Guy Emerson



T is perhaps a commonplace to say that few men spend much time contemplating the larger significances of the age in which they live and work.

Busy men, in particular, must be largely devoted to the current business which passes over their desks. Their first duty to society is to do that job well.

A normal, healthy citizen, with a sense of humor, cannot be constantly concerned with world crises in the abstract. If he were, he would cease to be normal, and would lose his priceless sense of humor—that great "self-righting mechanism" of human living.

But it is also true that, as citizens, we are more than business men, or professional men, or scientists. We are an integral part of the dynamic activity which is the United States of today, in perhaps the greatest crisis in our history.

Never before have so many responsible men and women had so deep a sense, more or less consciously felt, of uncertainty and crisis.

And well they may! When statesmen here, and the world over, constantly talk of possible world war, and declare we are actually engaged today in what they term a "cold war" who can be unconcerned? When we realize the horrible nature of the war of the future we would be callow indeed if we did not carry about with us a haunting restlessness and concern. Never before has there been so great an element of uncertainty in the fundamentals of domestic and foreign affairs. This is true not only of world politics, but of all phases of our economic and social life.

Against this background the United States of America has accepted a great challenge. Alone among the great nations of the world, we have taken our stand for a basic way of life. This way of life is called Democracy, and in its essence it involves the principle, believed in by most of us with an almost religious intensity, that a large measure of individual liberty is essential to a decent and happy life. We believe that this principle, in the last analysis, is not only worth living for, but worth dying for.

returns.

If America fails in this great experiment, Scandinavia, Holland, Belgium, France, England, cannot continue as democratic peoples. We are the sole great laboratory for the practical demonstration of this principle. If it works here, free men everywhere will be heartened. If we fail, they will in all probability be overwhelmed by the powerful and advancing forces of totalitarian control.

So this challenge we face today is not a theory. We are up to our necks in the battle. And the answer will not lie in what we think nor in what we say, but in what we do, here and now, in our own daily tasks, and in our civic and charitable activities as citizens of this great Republic, with its back to the wall.

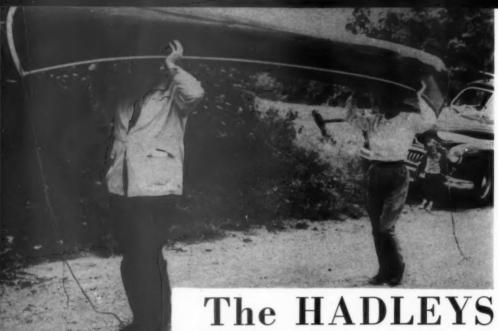
We can only do our best from day to day as God gives us light to see our duty. We can only take up one thing at a time, and make a success of it, and go on to the next job and get that done. But certainly we can do no less than that.

Naturally, every man and woman will have a different idea as to "the most important job" which ought to be done. But few will question that if America is to continue to be great its physical foundations must be sound. What is more vitel than our soil, our forests? And what kind of country would it be with no fish, no mammals, no birds?

No matter how great the crisis may be in the world of today and of tomorrow, conservation is and will be a critical problem.

The National Audubon Society is the leading organization in the United States of America carrying on year after year a persistent and scientific effort for the preservation of out-door America for our children and grandchildren. This is one of the jobs that cries for support. If we do this job well, we have done something in the main stream of the strengthening, physically and spiritually, of the United States.

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Have Fun

Even carrying a canoe-portage is the proper word—isn't too much of a chore when it's the start of a trip through the Hiawatha country, down the Tahquamenon River in Michigan (left). Below, Tom and Arlene Hadley look over the "Happy Valley" they have made famous in nature films. de

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Mrs. Hadley is active in state and local conservation activities in Michigan. An important part of the photographic team, she is credited with inspiring Tom Hadley's famous definition of an Audubonite:

"A true 'Audubonite' is an INDIVID-UAL, Man, Woman or Child, it really doesn't matter which . . . who can look up into a tree . . . NO MATTER HOW LARGE . . . and INSTANTLY spot a bird . . . NO MATTER HOW SMALL . . . and then spend a lifetime . . . NO MATTER HOW LONG . . . looking up into bigger trees . . . for smaller birds . . ."



The whole Hadley family—Tom and Arlene, the children and the dog—contribute to the making of nature films such as "Happy Valley" and "Creation," which have been called "picture poems" because they present, not merely isolated views of birds and animals in action, but the story and the philosophy of a countryside.

Michigan forests, the shores of Lake Superior, the Lake of the Clouds in the Porcupine Mountains—these are the haunts the Hadleys roamed and pictured in "Happy Valley." Then came disaster: a forest fire in which the film makers themselves were almost caught. Undaunted, they re-

turned to record the reawakening of the devastated country, the triumph of life over death, in another beautiful film, "Creation."

The real question is when do the Hadleys find time to paddle rivers, take photographs and lecture? By profession Mr. Hadley is an engineer, an executive in General Motors' Fisher Body Works. When he was president of the Detroit Audubon Club, the membership list leaped from 250 to 1500 in one year.

Two young Hadleys, Connie and Thom, now in college, are carrying on the family interests and talents and love for the open spaces.

Photograph below and those on opposite page by Bayard F. Lawes





BOOK NOTES

Richard H. Pough

THE EVERGLADES: RIVER OF GRASS

By Marjory Stoneman Douglas, Rinehart & Company, Inc., New York, N. Y., 1947. 5½ x 8¼ inches, 406 pages, illustrated. \$3.50.

This, the thirty-third volume of the Rivers of America Series, is a beautifully written account of a truly fascinating region. The introductory chapter gives a clear picture of the nature of the Everglades from the standpoint of its geology and ecology, and describes the common plants and animals that give the Glades their unique character. The book deals chiefly with the region's history-the original Indians, the Spanish explorers, the slow settlement by a few hardy pioneers and the final era of intensive and often ruinous drainage and exploitation. The tragic story of the stupidity, greed and waste involved in the opening up of this, one of the country's last frontiers, is well set forth. Mrs. Douglas ends, however, on a hopeful note. A great national park has at last been established, and soil and water studies, that point the wise course to follow in the future, have been completed. The golden moment is at hand when the people of Florida have it in their power to turn their back on the past and to demonstrate that Americans can conserve as well as destroy and act wisely when the facts are known.

THE ECOLOGY AND MANAGEMENT OF THE WILD TURKEY IN MISSOURI

By Dalke, Leopold and Spencer, Conservation Commission, Jefferson City, Mo., 1946. 6 x 9 inches, 86 pages, illustrated, paper covers.

This bulletin briefly summarizes what is known about the wild turkey in Missouri where some 4000 odd birds still survive. Although gone from 83 per cent of their original range, it has been demonstrated that they can be increased by management. Unfortunately, the control of poaching, the most serious adverse factor, is exceedingly difficult. The liberation of some 14,000 game-farm reared birds over an eighteen-year period without any demonstrates.

strable benefit clearly indicated that the solution of the turkey conservation and restoration problem does not lie in this direction.

THE BOOK OF INDIAN BIRDS, 4th Edition By Salim Ali, The Bombay Natural History Society, Bombay, India, 1946. 5 x 7½ inches, 444 pages, 189 color plates and 27 black and white. Rs. 16.

This popular handbook, in its revised and enlarged fourth edition, covers 197 of the commonest Indian birds, a page being devoted to each. The text is well organized under a series of standard headings and the full page color plates, while not great bird art, give one a good idea of what the bird looks like. The book has a brief introduction, a color key and short chapters on migration, usefulness of birds and bird watching. An excellent book for anyone who would like to know something about the birdlife of this vast subcontinent.

DESERT PARADE

By William H. Carr, The Viking Press, New York, N. Y., 1947. 53/4 x 83/4 inches, 96 pages, 74 photographs by Marvin H. Frost, \$2.50.

After a brief introduction on the four different American deserts of the Southwest, Mr. Carr devotes a chapter each to mammals, birds, reptiles, trees and shrubs, cacti and wild flowers. The outstanding species are discussed from the standpoint of identification, habitat and behavior. Many are well shown in the fine series of photographs. A useful handbook for even the casual desert visitor.



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DEATH VALLEY HANDBOOK

By George P. Putnam, Duell, Sloan and Pearce, New York, N. Y., 1947. 5½ x 8½ inches, 84 pages, end paper map. \$2.00.

Designed as a supplement to the author's earlier book on Death Valley, this small volume gives some statistics on the climate (highest temperature 134° F.), an annotated list of the 595 species of plants and a simple list of the birds and mammals. It ends with a brief chronology of its history.

ADVENTURES WITH A TEXAS NATURALIST

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By Roy Bedichek, Doubleday & Co., Inc., Garden City, N. Y., 1947. 5¾ x 81¼ inches, 293 pages, a few decorative illustrations. \$3.50.

This book by a well-known Texas educator and amateur naturalist deals with a wide variety of subjects that have particularly interested him in his rambles about the state. Foremost is the story of what man has done to this vast country that was so recently rich and virgin. He considers in detail the ecological effects of such human activities as fencing, the creation of reservoirs and overgrazing. Certain animals, such as the vermilion flycatcher, mockingbird and Inca dove are discussed at length, and the tragic story of what is happening to the golden eagle. Mr. Bedichek is a sound ecologist and the book will be an eye-opener to many who have never fully appreciated what destruction already has been wrought in our southwest.

WHISTLING WINGS

By Martin Bovey, Doubleday & Company, Inc., Garden City, N. Y., 1947. 8 x 101/2 inches, 162 pages, illustrated with photographs and drawings by F. Lee Jaques. \$7.50.

An interesting and handsome volume by a fine sportsman and naturalist, illustrated with many remarkable pictures of ducks in flight, mostly taken by the author. The many short chapters tell the story of some of his more memorable hunting adventures from his first hunt and first duck to trips as far afield as Hudson Bay, Alberta, Louisiana and the Carolina coast. Nationally known as a wildlife photographer and lecturer, Mr. Bovey tells of the additional rewards that await the sportsman who takes a camera as well as a gun into the field. The book ends with a plea to every hunter to spend more time enjoying ducks with binocular and camera, and to recognize that in the future the size of the bag must become a relatively unimportant aspect of waterfowl hunting.



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FLASHING WINGS

By Richard M. Saunders, McClelland and Stewart, Limited, Toronto, Canada, 1947. 61/4 x 91/4 inches, 388 pages, illustrated by T. M. Shortt. \$4.50.

A series of extracts arranged by day of the month, from the author's bird-trip journals. They cover a total period of about ten years, and take one to all parts of southern Ontario, but especially to the area around Toronto. The book as a whole forms a very good informal guide to the birdlife and best birding places in the area. An excellent calendar of migration dates for the Toronto region and a Christmas Count chart are included in an appendix.

FOR YOUNG READERS

RUFOUS RED-TAIL

By Helen Garrett, The Viking Press, New York, N. Y. 1947. 61/2 x 91/2 inches, 158 pages, drawings by F. Lee Jaques. \$2.50.

Through the media of characters that talk like human beings the author tells the story of how red-tailed hawks live and something of their relations with other predators like the osprey, great horned owl and bald eagle. As birds of prey are badly in need of a more sympathetic public attitude it is fine to have books of this sort available for small children for whom the anthropomorphic approach is often effective. Every admirer of these grand birds will want this book for Mr. Jaques' beautiful illustrations, even if he has no children to whom it can be read.

BLACK WINGS, THE UNBEATABLE CROW

By J. W. Lippincott, J. B. Lippincott Company, Philadelphia, Pa., 1947. 51/2 x 81/2 inches, 144 pages, illustrated with sketches by L. B. Hunt. \$2.50.

This is an interesting story of a crow that fell from its nest and became a pet, yet also managed to return to the wild to lead a fairly normal life. The author describes it as a composite based on his many years of experience with crows both wild and tame. The locale is a typical small farm occupied by a farm family who like animals. Every aspect of the crow's character and traits, both good and bad from a human standpoint, are fairly presented.

Bird Watching Adventures in Five Countries



By E. H. WARE. The humorous and vivid account of a "naturalist's tour at Government expense"—an R.A.F. aircraftsman's off-duty bird watching from the Norfolk marshes and Scottish Highlands, to Sardinia, Corsica, and North America. With 26 excellent photographs by the author, and line drawings by the eminent bird artist, Roland Green.

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Wild Wings

by Joseph James Murray

Dr. Murray, who is a minister of the Gospel in the Presbyterian Church, U. S., is widely recognized as an authority on birds. He has served as secretary of the board of directors of the National Audubon Society, is a member of the Wilson Ornithological Club, and edits *The Raven*, journal of the Virginia Society of Ornithology.

The book is profusely illustrated with photographs from the National Audubon Society files and has a beautiful color plate jacket from the same source. The chapters are short, informal chats about birds, made even more delightful because the author is relating his own experiences and observations of bird life and customs. One goes with him on walks through the countryside of his Virginia home, over the hills into more distant parts of the United States, and finally sails with him across the seas to enjoy the birds of far horizons.

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Pigeon Goes
To Audubon
Main Office

Smartest bird in Miami Tuesday was a lost baby pigeon.

It was too young to fly. It could walk, though. But downtown traffic is no place for a pedestrian pigeon these days.

At 4:30 p.m., the baby pigeon toddled into an office in the McAllister arcade. It had passed a lot of doors in walking halfway through the long arcade.



The door it entered bore the name: "National Audubon Society."

Charles M. Brookfield, in charge of the office, was impressed by the wisdom of the little pigeon.

"It knew where to go," Brookfield said.

He took it to an Audubon society member, Mrs. Gertrude K. Bradbury, 2143 S. Bayshore Dr., who occasionally takes in lost birds.

Brookfield could only guess how the baby pigeon got to his office.

"It evidently fell out of its nest and was able to flutter enough so it didn't get hurt in the fall. It's about a week old, I guess. I don't know much about the ages of pigeons."

He predicted such a smart bird would live to a ripe old age.-Miami Herald, Dec. 10, 1947.

Photographs from Miami Herald

Ruffed Grouse Pays Visit to Baker Home

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A large tuft-headed male grouse arrived at the garage of Mr. and Mrs. F. Cecil Baker of South Shaftsbury (Vt.), Thursday morning, and remained there overnight—in fact, still has possession of the garage. The Bakers have fed him bird seed and water and hope to take a picture of the bird. . . .

Mr. Baker is a director of the National Audubon Society and feels highly honored by the visit of the partridge.—The Bennington Evening Banner, Oct. 25, 1947.

Even after being photographed by L. Lick-roum, Jr., the grouse refused to leave, although the garage doors remained open for its escape. "Eventually we caught the bird and carried it outdoors," Mr. Baker wrote us. "Then it flew off, apparently in good shape and condition."



LETTERS

A MEN to Jacob B. Abbott's letter in Sept-Oct number. I have an unbroken file of every issue of Bird Lore and Audubon Magazine and deplored the change of name and the gradual deterioration of the magazine from the fine articles and photographs of the 20's and 30's. Only that I am a life member I would not take the magazine.

Why include in a bird magazine so many articles on Soil Erosion, The Redwoods, City Folks Need Roots in the Land, Keeping Company with the Cascades, Our Grazing Lands, Home Coming of the Elk, among others, irrelevant to birdlife?

At least I hope for no more undignified crosswords and "brainbreakers."

ANNE E. PERKINS, M.D.

Berwick, Maine

WISH to second Mr. Jacob B. Abbott, Haverford, Pa. page 316, in Sept-Oct issue.

GEO. W. H. VOS BURGH

Columbus, Wisconsin

I HAVE been considering whether or not I would renew my membership. My decision to do so was prompted by your publication of the Abbott

The fact that this letter was published and the fact that at least one other member feels the same way I do led me to hope there may be some change

It will be interesting to see what another year brings forth.

CECIL A. POOLE

San Jose, California

AGREE with the views expressed by Jacob B. Abbott in the Sept-Oct issue, though he makes his point in terms that are a little too severe. The magazine as now edited is interesting and well worth the subscription price. It is not so good, however, as the publication of a few years ago.

You print too many general articles at the expense of scientific information about birds. The appeal to adults who know little about the subject and to children is excessive. There certainly is a tendency to come down to the mental age of, say, twelve; a common failing of American magazines, but one which I should like to see you avoid. Your captions are not at the low level of those used in the National Geographic, but they could be improved.

It is to be hoped that you have heard from a large number of readers on this question and it will be interesting to see how the vote runs, for

or against.

W. ADOLPHE ROBERTS

New Orleans, La.



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WANTED. Out-of-print books on birds and other natural history subjects; bird magazines. Bent's "Life Histories," Bendire, Chapman and many others. Entire collections or single volumes. Generous prices, prompt payment. Fred J. Pierce, Winthrop, Iowa.

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BIRD PRODUCTS COMPANY Dept. A, Glenside, Pa. I CONFESS to some sympathy with Mr. Abbott, whose letter you printed in the Sept-Oct issue. Of course, the magazine is very different in its purposes from the old *Bird-Lore* of Frank Chapman. That was primarily ornithological, though more popular in its appeal than the *Auk* and the *Condor*.

At present Audubon Magazine's emphasis is on conservation and education. In these fields it is doing good work, but I feel there is some danger (from the point of view of its best usefulness) of making it too diffuse and catering too much to immature minds.

Finally, I have a feeling that Mr. Abbott wouldn't like the glimpses "behind the scenes." I don't think they are very dignified—but then you don't specialize in dignity in your editorial comment!

FRANCIS H. ALLEN

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West Roxbury, Mass.

H AVING taken Audubon Magazine for a number of years, through its more scientific (big and technical words) phase and now through its very welcome and more human presentation, I hope I shall never have to do without it.

MABEL SELLERS TODD

Austin, Texas

IN YOUR Sept-Oct issue I liked especially "City Folks Need Roots in the Land" with its stirring social implications. The antagonism between city and country workers mentioned in the fourth sentence will be lessened by such articles and by such efforts as Chicago makes to introduce city people to country ways.

That antagonism is the subject of an interesting book by a farmer and an industrial worker, P. A. Waring and C. S. Golden, "Soil and Steel: Exploring the Common Interests of Farmers and Wage

Earners." (Harpers, 1947.)

L. A. ELDRIDGE, JR., M.D.

Great Neck, Long Island, N. Y.

S O OFTEN I have thought of the unique lure, completely ignored by most people, of the old-time country lane.

"City Folks Need Roots in the Land" says with real eloquence what ought to be said. It rings a clear bell.

RUTHERFORD PLATT

New York City

M. R. JACOB B. ABBOT'S letter of complaint to the editor in Sept-Oct Audubon Magazine moves me to assure you that I and several of my friends enjoy the scope that this "popular" organ presents to us and we hope you continue to awaken millions of unscientific, as well as scientific, readers to the value and preservation of our glorious

heritage in America, the vast parks, the wildlife and plant life even in our everyday paths.

MRS. OSKAR RADTKE

South Haven, Mich.

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HAVING read the Sept-Oct issue with keen interest, I want to express my feelings to you. Sometimes I have felt that this publication tended a little too much toward just stories of birds, and not enough attention was given to vital conserva-

tion problems.

This number cannot be criticized on that account. The leading article by Scott is of real interest, and that entitled "City Folks Need Roots in the Land" by Roberts Mann is quite outstanding. More articles of that character will be all to the good. I also like Devoe's "Birds Are Human Too," which to my mind states the true facts regarding the similarity of instinctive actions in humans, birds and other animals. I hope it will tend to straighten out some people's misconcep-

tions along this line.

Finally let me welcome the return of "The President's Report to You." I look for this section in every issue, and lately have been disappointed several times. In this particular report, Mr. Baker dealt with many matters of outstanding interest

and importance to conservationists.

Groton, Mass.

WM. P. WHARTON

YOUR stimulating letters "to and from the editor" bring in an additional element that is personal and refreshing.

In your Sept-Oct issue we profited by your invitation to ask Ellsworth D. Lumley, president of Seattle Audubon Society, for his pamphlet "The Truth About Washington Hawks." All who read the report by this forthright conservationist must have thrilled to the splendid fight the Seattle Audubon Society is leading against indiscriminate and illegal slaughter of hawks that are protected by law.

However, when we asked for his pamphlet, we confessed our own apprehensions for the banded chickadees that come to our station here in Lincoln, Nebraska, because two screaming "Killy" hawks had just moved into our trees. So we asked for his suggestions.

Mr. Lumley's reply preaches a biological sermon: a watchman's warning voice that should arrest attention, not only of bird people, but of all the public, for he says:

"I know how you feel when you hear that sparrow hawk call—and yet I must accept this as a part of nature if I am to believe in nature. The hawk has his place to serve and simply because I don't understand that place doesn't mean that the hawk is wrong. I have watched a hawk eat one of my song sparrows on my back fence, and it sort of made me sick inside. Yet it was no less

natural for the hawk to do this than when my chickadees eat the tiny caterpillars.

"I have no way of knowing why the hawk took the song sparrow. Probably it was because the song sparrow was too old to be alert and fast, possibly it was because the bird was ill, diseased or parasitized. Maybe it was because the bird was dull in the first place. Nature removes the unfit, and the hawks are a part of nature's method of reducing the bird population to the carrying capacity of the land.

"Yes, Mrs. Gulotta, I think I know how you feel. Yet I have learned to enjoy the hawk for what he is and the work he does. I am sure I couldn't do his work because I would never know the unfit bird to remove.

"Thanks very much for your comment about our hawk leaflet. I feel our hawks are getting a most unjust deal in Washington State—hundreds are being killed by the men who should be protecting them."

I am sure your readers will be interested in Mr. Lumley's remarks.

WILHELMINA GULOTTA

Lincoln, Nebraska

From the Editor:

HOW's that for a stimulating and provocative column of letters to the editor? A fine collection for this first number of Volume 50 for these letters prove that we are certainly not in a rut. Let's have more expressions of opinion about our magazine. This is a good year in which to examine and re-examine our editorial policy, for next year we celebrate our 50th birthday.

With our 50th anniversary so close at hand, it seems a propitious time to begin a new feature which we have entitled "Reprinted from Bird-Lore." We hope that the brief items which we shall reprint will encourage you to browse through your back-number files. Begin at the beginning, way back in 1899—you'll find those early issues full of valuable information and very interesting from an historical point of view.

Not so long ago, a letter from Edward A. Preble said that he remembered "being in Dr. Merriam's office when he and Dr. Chapman were discussing the 'new' magazine. I believe that Dr. Merriam suggested the name for I saw a rough sketch of the cover on which he had written, in his characteristic hand, Bird-Lore." I am sure that there are others among our readers today who were present when Bird-Lore was being born, and who contributed to those early issues. We hope that you will send us your reminiscences for publication in this column.

For those among our readers who do not know the circumstances of our change in name, we reprint a statement by John H. Baker which appeared on page 59 of the Jan-Feb 1941 issue:

"For 36 years Bird-Lore, a name to conjure with, was published by Frank M. Chapman, than whom no man has made a greater contribution to the development of appreciation of the living bird. Through his generosity it has been the privilege of the National Audubon Society to publish Bird-Lore during the last six years. With development of the scope of the Society's activities to cover more thoroughly the whole field of conservation of wildlife resources, it became increasingly evident that, no matter how great the good-will attached to the name Bird-Lore, it had ceased to symbolize adequately the Society's work. So, with this issue, Bird-Lore has gone through a face-lifting treatment and appears herewith in full dress as Audubon Magazine (formerly Bird-Lore).

Interestingly enough, when the very first Audubon Society was formed, in New York State, through the initiative of the late George Bird Grinnell, a boyhood neighbor of John James Audubon, its official publication was titled The Audubon Magazine and was published under that name in 1887 and 1888. Since that day and especially, in fact, during the later years of Bird-Lore's life, the name Audubon has acquired fame far and wide, such that it has seemed to the Directors wise to capitalize on the publicity value of that name, so appropriate for the Society's use, in aiming to develop the magazine's appeal to a far greater number of our citizens. Though the name is being changed, the size, shape, type and general character of the magazine's content will remain unaltered."

Our Brothers' Keepers

Millions all over the world today are suffering an undeserved and cruel fate —a fate that, except for a difference in geography, might well be yours. Put yourself in their place and decide for yourself whether you can refuse to be your brothers' keeper.

The peace for which we all fought together cannot be realized if hunger and privation stalk across more than half the world, if the grim spectre of another war lurks amid the misery and discontent engendered by our real enemy famine overseas.

Give Them This Day . . . Contribute to your local American Overseas Aid— United Nations Appeal for Children; or to AOA-UNAC National Headquarters, 39 Broadway, New York 6, N. Y. Is

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Don't miss our photographs by ALLAN CRUICKSHANK

"Photographs by Cruickshank" is a phrase familiar to all readers of this magazine and other magazines publishing bird pictures that are at once dramatic, authentic and beautiful. You've seen them many times—perhaps also you've seen many of them, such as the young mockingbirds above, reproduced in the new Cruickshank book, "Wings in the Wilderness."

Now see original prints in all their brilliance of design, their depth of light and shade, in the exhibition of fifty Cruickshank photographs sponsored by National Audubon Society.

For information about bringing the exhibition to your city, write National Audubon Society, 1000 Fifth Avenue, New York 28, N. Y.

Buy a HydHome to rent for a song Put up bird houses now for your early spring tenants

HydHomes are exceptionally well built, stained a "woodsy" brown, properly ventilated and drained. Entire bottom removable for quick and easy cleaning. Full instructions for locating and hanging attached to each bird house.

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HYDE BIRD FEEDER COMPANY 56 Felton Street, Waltham 54, Mass.

Reprinted from

Bird-Lore

Issue of April 1899, page 65

A Letter from Governor Roosevelt

My dear Mr. Chapman:

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I need hardly say how heartily I sympathize with the purposes of the Audubon Society. I would like to see all harmless wild things, but especially all birds, protected in every way. I do not understand how any man or woman who really loves nature can fail to try to exert all influence in support of such objects as those of the Audubon Society.

Spring would not be spring without bird songs, any more than it would be spring without buds and flowers, and I only wish that besides protecting the songsters, the birds of the grove, the orchard, the garden and the meadow, we could also protect the birds of the seashore and of the wilderness.

The Loon ought to be, and, under wise legislation, could be a feature of every Adirondack lake; Ospreys, as every one knows, can be made the tamest of the tame, and Terns should be as plentiful along our shores as Swallows around our barns.

A Tanager or a Cardinal makes a point of glowing beauty in the green woods, and the Cardinal among the white snows.

When the Bluebirds were so nearly destroyed by the severe winter a few seasons ago, the loss was like the loss of an old friend, or at least like the burning down of a familiar and dearly loved house. How immensely it would add to our forests if only the great Logcock were still found among then!

The destruction of the Wild Pigeon and the Carolina Paroquet has meant a loss as severe as if the Catskills or the Palisades were taken away. When I hear of the destruction of a species I feel just as if all the works of some great writer had

perished; as if we had lost all instead of only part of Polybius or Livy.

Very truly yours,

THEODORE ROOSEVELT

Correction

For your Nov.-Dec., 1947, issue.

Page 324: This caption lost its way and belongs with Plate 34 which is shown on page 329. The caption at top of page 324 should read:

The red-eyed vireo in Audubon's Plate 150 reaches for a jumping spider—but don't let the spider's web mislead you!

Our readers had some real fun with us in calling the mix-up to our attention. As, for instance, this letter from R. G. Beidleman of the University of Colorado Museum in Boulder:

"The worm-eating warbler seems to be something of a Jekyll and Hyde among the birds, conveniently donning the feathers of a red-eyed vireo to nibble a black-widow-alias-jumping-spider out of its web. Your proofreader apparently didn't investigate the plate captions any more closely than Audubon did his spiders, with the result that in Audubon's original plate 150 (now marked down to 34) there is a worm-eating red-eyed-vireo-warbler ogling a black-widow-jumping-spider who is merrily occupied building a web that, according to web union regulations, should have been constructed by an orb weaver spider. But in the midst of this taxonomic confusion is a very interesting article which brings to our attention the fact that Audubon painted interesting backgrounds as well as birds!

Page 325: In the caption at top of page, cross out the word "grasshopper" dreamed up in the layout room in order to make the caption lines "square up." Some of our readers have sent us suggestions for identification but Edwin Way Teale says that's treading on dangerous ground. He says: "Why say what it is when we don't know?"



When you're in Minnesota visit Ken Morrison

Minnesota Representative of the National Audubon Society

Office: 400 Public Library Bldg., Minneapolis Home: 3544 Colfax Avenue South, Minneapolis

He will direct you to interesting places to explore for wildlife and will try to make your stay in the North Star State more productive from the natural history standpoint than it might otherwise be.

Both Minnesota Audubon members and visitors will be interested to know that the National Audubon Society has established its Minnesota office in the Science Museum at 400 Public Library Bldg., Minneapolis, Mr. Morrison will be pleased to have you stop in to get acquainted and will be glad to show you such Service Department materials as bird prints, slides, binoculars, nature books, etc.

Present plans are that Mr. Morrison will again conduct Audubon Wildlife Tours in Itasca State Park in northern Minnesota next July and August. Why not include this scenic wonderland of pines and lakes on your summer vacation itinerary?

Mr. Morrison is preparing a series of articles for Audubon Magazine on how to organize and sustain interest in local Audubon Societies and bird clubs. If you belong to a local bird group, it would be greatly appreciated if you would write Mr. Morrison, giving detailed information under these headings: organization of club, programs and field trips, membership and publicity, special projects such as sancturaires, bird house contests, Audubon Junior Club promotion, conservation work, etc. He is especially interested in knowing about activities that have been instrumental in building membership or in sustaining the enthusiastic participation of members in the club's work.

Answers to quiz on page 40

- (4) Yapocks are aquatic opossums, and any zoo would be delighted by the gift of one.
- (2) The megatherium, a relative of the sloth, is an extinct animal. Skeletons are to be found in various museums. The best known species of megatherium was nearly as big as an elephant.
- 3. (3) Glabrous means devoid of hair.
- (2) The term sessile is used in botany to describe a leaf without a petiole.
- (2) A speleologist is a man who studies caves and caverns.
- 6. (2) The squeteague is a weakfish.
- 7. (4) Blennies are a genus of spiny finned fish.
- (3) A ranunculus is a flowering plant. In this
 country the name commonly designates a
 marsh buttercup.
- (2) Botanists use the term raceme for a kind of inflorescence in which the flowers are on simple stalks distinct from each other and arranged around a common axis.

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- (4) Filoplumes are long, slender, flexible feathers.
- 11. (3) Tertiaries are wing feathers.
- 12. (2) The maxillary is the jaw-bone.
- 13. (4) This is the principle that an animal's behavior must not be ascribed to intelligence if it can be adequately accounted for by ascription to subrational factors.
- 14. (3) Woodchucks are not marsupials.
- 15. (3) Natatorial means pertaining or adapted to swimming. In technical usage, the Natatores are the Order of Swimming Birds. Alluvial means washed away from one place and deposited in another, and is used to describe mud, gravel, etc.; millennial means lasting for a thousand years; hebdomadal means weekly.
- (3) Lanceolate, in botany, is the term for leaves that are narrowly elliptical, tapering to each end.
- 17. (1) Pitchblende is an ore in which radium appears.
- 18. (2) Gneiss is a kind of rock akin to mica schist.
- 19. (1) Guano—a word originating in Peruvian Spanish—is the term applied to the droppings of colonies of birds. Guano is extensively exported from the islands off the coast of Peru for use as fertilizer.
- (1) Accipiters are hawks, and a man's occiput is the back of his head.

Please send us your Sept.-Oct. 1947 issue if you have no further use for it.

Give bird visitors regular meals if you want them to stay around



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Study Nature in New England-

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AUDUBON NATURE CENTER for Adult Leaders opens in June for its fifth season.

The Audubon Nature Center at Greenwich, Connecticut, one hour from New York City, comprises 408 acres of beautiful rolling country near Long Island Sound. Abundant variety of lush vegetation with all its accompanying wildlife makes this a fascinating area to explore. Old woodlands of big sugar maples and beech, swemp forests, ferny glens, meadows, marshes, lakes and streams are all part of the setting—and nearby is the Sound with its interesting marine life and selt marshes.

Here students learn at first hand how plants and animals live, about the interdependence of plants animals, soil and water; they discover interesting ways to present conservation and nature appreciation in their own community; learn practical solutions to various conservation problems.

Teachers and leaders of both adult and children's groups come here every summer from many parts of the country to participate in the Center's carefully planned program for learning in the out of doors.

Three Two-Week Sessions for 1948 Fifth Season

Three two-week Conservation Workshop sessions
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July 26—August 7
August 16-28

- also -

Two five-day sessions for Garden and Women's Club Conservation and Bird Committee Personnel July 12-16; August 9-13.

_ and _

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Send coupon for illustrated prospectus.

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Please send illustrated folder describing the program and facilities of the Audubon Nature Center. Greenwich, Conn.

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Down East on the coast of Maine!

Plan now—for a two-week session at the AUDUBON NATURE CAMP for Adult Leaders opening for its tenth season in June, 1948.

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Audubon Nature Camp, Medomak, Maine, is on a spruce covered island at the head of beautiful Muscongus Bay 60 miles northeast of Portland. The island with its 330 acres of coniferous woods and interesting shores; the adjacent mainland with its fresh-water ponds, streams, hardwood forests and farms; and the outlying islands inhabited by large colonies of oceanic birds provide ideal surroundings for a nature camp. Campers have opportunity to observe the home life of many kinds of animals, explore a wide variety of plant and animal habitats, and see in each the many different and fascinating interrelationships between plants, animals, soil and water.

Teachers, Camp counselors and leaders of both adult and children's groups come to the camp each summer from all over the United States and Canada to enjoy participation in the Camp program of carefully guided field trips and discover interesting ways to teach nature and conservation in schools, clubs and camps.

Five two-week sessions in 1948—Tenth Season

June 11 through June 24 July 9 through July 22

June 25 through July 8 July 30 through Aug. 12

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Please send illustrated folder describing the program and facilities of the Audubon Nature Camp, Medomak, Maine.

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California, here we come!

The National Audubon Society will conduct five two-week camp sessions for teachers and other youth leaders in the summer of 1948 at the Sugar Bowl Lodge at Norden, near Donner Pass, California.

Purpose: To better equip teachers and other leaders to arouse public understanding of the value, and need of conservation, of soil, water, plants and wildlife, their interdependence and the relation of their intelligent treatment and wise use to human welfare; to enable them to participate in demonstrations of successful teaching techniques and take home programs adapted to their own uses during the ensuing year.

Program: An outstanding staff of naturalists will demonstrate in the field, with ecological approach, techniques in observation and interpretation of the life histories and interrelationships of plants, birds, other vertebrates (mammals, fish, reptiles, amphibians) and insects and other invertebrates. Special attention will be given to nature activities.

Location: The Sugar Bowl Lodge is at 7000 feet altitude in the Sierras, one mile off the main highway from Sacramento to Reno and twenty-four miles from Lake Tahoe. It is in the Hudsonian Zone, lying just at the fringe of the Canadian, yet with timberline within easy reach. Lodgepole and white-bark pines, red and white firs, hemlock, juniper and Jeffrey yellow pines will be about the camp. There are Clark's nutcrackers, Steller's jays, western tanagers, white-headed woodpeckers, mountain chickadees and more than half a dozen kinds of warblers nesting about the camp. Historically, it is right at Emigrant Gap and on the Donner Party trail; the days of the 49'ers will be relived by the campers. Geologically, it is near the contact of the granites of the Sierra Block and the volcanic flows of the Cascades. The whole story of the uplift that produced the Sierras—the longest and highest mountain range in the U. S.—can be studied here.

Accommodations: Board and lodging facilities at the lodge are of the best. A competent dietician gives guarantee of nutritious and ample food. Access is easy by car, by bus and by train.

Sessions in 1948:	July 18thJuly 31st
June 20thJuly 3rd	Aug. 1st
July 4thJuly 17th	Aug. 15th Aug. 28th

Enrollment fee, \$75 per session covers tuition, board and lodging; send \$10 deposit with enrollment.

To enroll or for further information, apply to Audubon Nature Camp of California, c/o. Mrs. Ethel E. Richardson, 887 Indian Rock Avenue, Berkeley, California (Phone: Ashberry 3-5292)